DOCUMENT RESUME

ED 431 451 JC 990 372

TITLE	Maintaining Missouri's Tradition of Affordable Higher Education.
INSTITUTION	Missouri Coordinating Board for Higher Education, Jefferson City.
PUB DATE	1999-02-22
NOTE	110p.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC05 Plus Postage.
DESCRIPTORS	*Educational Finance; Higher Education; Need Analysis (Student Financial Aid); *Paying for College; School Funds; State Federal Aid; *Student Financial Aid; Student Loan Programs; *Tuition
IDENTIFIERS	*Missouri

ABSTRACT

This report provides contextual background for the Missouri Commission on the Affordability of Higher Education, which was established in 1998 to engage students, parents, business, higher education, and public policy leaders in a systematic dialogue aimed at ensuring that an affordable college education stays within reach of Missouri citizens. The report addresses primarily the price of undergraduate education, i.e., tuition and fees full-time undergraduate Missouri residents pay to attend college. An overview of Missouri's System of Higher Education is first presented, followed by observations on the economics and financing of higher education, including the changing role of tuition and fees, appropriations, cost of living, and per capita disposable income. Overall, the price of higher education as a percent of Missouri per capita disposable income increased from 1989 to 1997. The report also covers the role of student financial aid, noting that although the total amount available has increased in recent years, much of the aid awarded by institutions is based on merit and ability rather than financial need. Further, in recent years, the total amount in student loans has increased significantly as well. The report also presents the challenge to the states by the National Commission on the Cost of Higher Education, and a discussion of the Missouri Coordinating Board for Higher Education Initiatives and Policies Affecting Affordability. (JJL)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 431 451

Maintaining Missouri's Tradition of Affordable Higher Education

Prepared for the

Missouri Commission on the Affordability of Higher Education

February 22, 1999

JC990372

Missouri Coordinating Board for Higher Education

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
X This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

BEST COPY AVAILABLE

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY
A. P. Sweet
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Preface

The public concern over the increasing price of education beyond high school is very real. The latest national survey conducted by the American Council on Education shows that 71 percent of the respondents believe that a four-year college education is not affordable for most Americans. In addition, the price of an institution and availability of student financial aid was the most frequently cited factor Missouri public two- and four-year college and university currently enrolled students gave for choosing the school where they enrolled; with price being the most important factor for students enrolling in public two-year community colleges (Zhou, 1999). The genuine fear of many families that they will be unable to afford a baccalaureate college education, either for themselves or their children, has not been lost on state public policy and higher education leaders. A comprehensive survey carried out by the Midwestern Higher Education Commission in the fall of 1997, sought the opinions of state public policy and higher education leaders from 12 Midwestern states in identifying the most critical issues facing postsecondary education. The survey results clearly indicate that both groups consider the issue of affordability to be of primary concern.

Noting that public concern over college affordability was at a 30-year high, the United States Congress moved in 1998 to convene the National Commission on the Cost of Higher Education. The wide-ranging recommendations of the Cost Commission constitute a framework of shared responsibility for maintaining financial access to higher education. Many of the Cost Commission's recommendations, which require federal, state, and institutional implementation, have been incorporated into the recently signed reauthorization of the Higher Education Act of 1965.

The Coordinating Board for Higher Education, with endorsement from Governor Mel Carnahan, established in December 1998, the Missouri Commission on the Affordability of Higher Education to engage students, parents, business, higher education, and public policy leaders in a systemic and deliberate dialogue aimed at ensuring that an affordable college education stays within reach of both this and future generations of Missouri citizens.

To that end, on December 9, 1998, the Coordinating Board for Higher Education adopted the following charge to the Missouri Commission on the Affordability of Higher Education.

Whereas *access, quality, and efficiency for the state's system of higher education guide the public policy actions and discussions of the Coordinating Board for Higher Education; and*

Whereas *maintaining financial access to Missouri higher education is of paramount concern to Missouri students and families, the Coordinating Board for Higher Education, and the state's public policy leaders; and*

Whereas *the United States Congress established the National Commission on the Cost of Higher Education to review and examine issues related to the rising price and cost of higher education; and*

Whereas *the National Cost Commission recommended that states and institutions of higher education engage in a dialogue and exploration of issues related to the cost, price, and affordability of higher education; and*

Whereas *Governor Mel Carnahan encouraged the Coordinating Board for Higher Education to undertake a comprehensive review of the costs of higher education in Missouri to ensure that everything possible is being done to control costs and help students complete their degrees on a timely basis; and*

Whereas *the Missouri Coordinating Board for Higher Education has appointed a Commission on the Affordability of Higher Education to engage in a statewide dialogue on the cost, price, and affordability of Missouri higher education, to examine the facts, to explore and identify the issues and factors affecting the cost of higher education, to identify and report on cost-saving initiatives, and to prepare related recommendations,*

Now Therefore Be It Resolved *that the Missouri Commission on the Affordability of Higher Education review and examine pertinent data, review the facts, and make recommendations to the higher education community at the 1999 Governor's Conference on Higher Education about (a) the price of attendance, (b) the factors affecting the cost of attendance, (c) the role student financial aid, state and local appropriations, and other subsidies have in financing higher education, (d) the clarity and relevance of public information and the need for greater accountability to prospective students, families, and public policy leaders about the price and cost of higher education, and (e) the relevant public policy issues related to the affordability of Missouri higher education.*

The overview of the state's system of higher education included in this report demonstrates that Missouri's system of higher education is characterized by its size and scope, institutional diversity and autonomy, results, and contributions to the state's workforce development system.

It is noted that the mission of higher education is to provide access to learning opportunities beyond high school, to support research, and to promote public service. In addition, the nonprofit economic structure within which public and independent colleges and universities operate and compete is somewhat different from the economic structure of the private for-profit sector. Consequently, colleges and universities typically do not behave in ways similar to private companies and industries. While the return on the private and public investment in higher education remains high, the price charged to students and families is increasing at rates which exceed selected indices such as the Higher Education Price Index and Consumer Price Index. Proportionately, the price of higher education as a percent of per capita disposable income is higher in 1997 than it was in 1989.

The number of student financial aid programs has increased on both the state and federal levels and the amount of money for student financial aid has increased in recent years. Much of the aid awarded by institutions, however, is based on merit and ability rather than financial need. In addition, not all need-based financial aid programs are targeted to the poorest students and families from low socio-economic backgrounds. Further, in recent years, the number of students incurring financial debt through student loans and the total amount in student loans has increased significantly. The proportion of funds available for student grants, which do not need to be repaid, is dwarfed by the amount of loan money used by students and parents that does need to be repaid.

The debate between higher education financing strategies that focus on low tuition and low student financial aid compared to high tuition and high student aid continues. Whether states fund the operations of institutions or fund students is a complicated educational and public policy discussion.

The purpose of this report, ***Maintaining Missouri's Tradition of Affordable Higher Education***, is to provide contextual background about Missouri higher education for the Missouri Commission on the Affordability of Higher Education as it begins its deliberations. This report is limited in that it addresses primarily the price of undergraduate education, i.e., tuition and fees full-time undergraduate Missouri residents pay to attend college. It does not include, at this point, a discussion of costs and related issues associated with graduate and professional education, technology advancements, and investments in capital improvements, equipment, and new buildings. The staff at the CBHE and others who contributed to its development, including Dr. Larry Gates of the University of Missouri system office, hope that this purpose has been achieved.

Table of Contents

Preface i

Table of Contents iv

List of Charts and Tables v

I. Introduction 1

II. Overview of Missouri's System of Higher Education 6

III. Observations on the Economics and Financing of Higher Education 11

IV. The Changing Role of Tuition and Fees, Appropriations, Cost of Living, and Per Capita Disposable Income 17

V. The Role of Student Financial Aid in Financing Missouri Higher Education 22

VI. The Challenge to States by the National Commission on the Cost of Higher Education 27

VII. Missouri Coordinating Board for Higher Education Initiatives and Policies Affecting Affordability 31

VIII. Summary of the 1998 Missouri Governor's Conference on Higher Education 36

IX. Summary 38

X. Appendices 39
A. Mission Review and Enhancement 41
B. Definitions 43
C. Charts and Tables 50
D. Results of Missouri Higher Education 102
E. Bibliography 108

List of Charts and Tables

Chart 1: Total Headcount Enrollment, Missouri Public, Independent, and Proprietary Institutions, Fall 1997 52

Chart 2: Total Degrees Conferred, Missouri Public, Independent, and Proprietary Institutions, FY 1997 54

Chart 3: Percent Distribution of In- and Out-of-State Undergraduate Enrollment, Missouri Public and Independent Institutions, Fall 1997 56

Chart 4: Age Distribution of Full-time Undergraduate Students, Missouri Public and Independent Institutions, Fall 1997 58

Chart 5: Total Undergraduate Headcount Enrollment by Ethnicity, Missouri Public and Independent Institutions, Fall 1997 60

Chart 6: Total Undergraduate Degrees Conferred, by Discipline, Missouri Public and Independent Two- and Four-year Institutions, FY 1997 62

Chart 7: Number of Full-time Employees by Occupational Activity, Missouri Public and Independent Institutions, Fall 1997 64

Chart 8: Current Fund Education and General Revenues, FY 1997, Missouri Public and Independent Universities - University of Missouri and Missouri Independent Doctoral Degree-granting Universities 66

Chart 9: Current Fund Education and General Revenues, FY 1997, Missouri Public and Independent Colleges and Universities - Public Four-year Colleges and Universities and Independent Baccalaureate and Master's Degree-granting Colleges and Universities 68

Chart 10: Current Fund Education and General Revenues, FY 1997, Missouri Public Two-year Institutions 70

Chart 11: Unduplicated Count of Students Receiving Need-based Financial Aid from Public and Independent Institutions, FY 1997 72

Chart 12: Average Tuition and Fees for a Typical Full-time Undergraduate Student Enrolled in Missouri Public and Independent Institutions, Academic Year 1997-1998 74

Chart 13: What Full-time Undergraduates Pay to Attend Missouri Public and Independent Institutions, Fall 1997 76

List of Charts and Tables (Continued)

Chart 14: Cumulative Growth of Tuition and Fees and Appropriations, FY 1974 - FY 1999, Missouri Public Four-year Colleges and Universities 78

Chart 15: Cumulative Growth in Tuition and Fees and Appropriations, FY 1980 - FY 1999, Missouri Public Two-year Institutions 80

Table 1: Annual Tuition and Fees at Missouri's Public and Independent Colleges and Universities per Full-time Equivalent Student by Sector, 1989-1998 82

Chart 16: Cumulative Growth in Tuition and Fees, the Higher Education Price Index, and the Consumer Price Index, 1989-1998 84

Chart 17: Tuition and Fees as a Percent of Missouri Per Capita Disposable Income, by Sector, 1989-1997 86

Table 2: Tuition and Fees as a Percent of Per Capita Disposable Income, FY 1989 - FY 1998 88

Chart 18: Higher Education's Percent of State General Revenue and Lottery Appropriations, FY 1974 - FY 1999 90

Chart 19: Federal Student Financial Aid by Award Type and Institutional Sector, FY 1991 and FY 1996 - Missouri Public Two-year and Four-year Colleges and Universities and the University of Missouri system 92

Chart 20: Federal Student Financial Aid by Award Type and Institutional Sector, FY 1991 and FY 1996 - Missouri Independent and Proprietary School Sectors 94

Chart 21: Institutional Student Financial Aid by Award Criteria and Institutional Sector, FY 1991 and FY 1996 - Missouri Public Two-year and Four-year Colleges and Universities and the University of Missouri system 96

Chart 22: Institutional Student Financial Aid, by Award Criteria and Institutional Sector, FY 1991 and FY 1996 - Missouri Independent and Proprietary School Sectors 98

Chart 23: Distribution of Total Student Financial Aid by Award Type, FY 1991 and FY 1996 100

Maintaining Missouri's Tradition of Affordable Higher Education

I. Introduction

In December 1998, the Missouri Coordinating Board for Higher Education (CBHE) appointed the Missouri Commission on the Affordability of Higher Education to investigate the facts and explore the issues related to the cost to deliver higher education and the prices colleges and universities charge. In addition, the board directed the commission to develop recommendations for ensuring the continued affordability of Missouri higher education and to present those recommendations at the Governor's Conference on Higher Education in December 1999.

The purpose of this report is to provide background information about Missouri's system of higher education the commission may need to respond to its charge.

Background

Statewide discussions about both general and specific issues of Missouri higher education have been essential to the progress made in responding to the changing conditions faced by the state of Missouri, as well as citizen concerns about the access, quality, and efficiency of the state's system of higher education. During the last 30 years, such initiatives have provided direction for the prudent expenditure of billions of dollars in operating and capital funding as well as for student financial aid.

The Coordinating Board's master plans for higher education – issued in 1966, 1972, and 1979 – addressed issues of affordability and the state's investment in higher education. In 1970, the Tucker Commission, appointed by Governor Hearnes, recommended that the state's system of independent higher education be recognized for its role in providing access to higher education opportunities. This was accomplished by establishing a state need-based student financial aid grant program accessible to students enrolled in the state's independent and public colleges and universities. Affordability issues were addressed by another statewide commission, the Business and Education Partnership Commission. In January 1991, the Partnership Commission recommended that an additional $640 million be invested in Missouri higher education, $340 million in one-time investments for deferred maintenance on buildings and equipment acquisitions, and $300 million in annual costs.

In November 1991, a statewide referendum was held to gain taxpayers' approval for an increase in taxes to finance the plan for Missouri higher education recommended by the Business and Education Partnership Commission. The referendum failed for a number of reasons. The public did not support making an increased investment in the state's system of higher education for the same results and without qualitative improvement in the system. Following the failure of Proposition B, the Coordinating Board established the

Task Force on Critical Choices for Higher Education in December 1991 to develop a series of performance goals for the state's system of higher education.

The Task Force on Critical Choices was composed of the governing board chairs, or their designates, from public and independent colleges and universities throughout Missouri. The task force reviewed and discussed numerous critical issues facing higher education in Missouri and advanced the work of the Business and Education Partnership Commission.

Shaping the Future: Critical Choices on the Road to Excellence provided a context for the Task Force on Critical Choices' discussions in 1991-92 as it deliberated on issues facing Missouri higher education. Included in that report is the following statement that was incorporated into the Coordinating Board's 1995 ***Blueprint for Missouri Higher Education*** and has guided the development of the board's statewide planning initiatives and public policy decisions.

As Missouri approaches the turn of the century, it has the opportunity to participate actively with other states and the nation in planning for self-renewal. The social, educational, and economic changes occurring in Missouri and the nation are well documented and are, indeed, significant. If the challenges resulting from these changes are to be met successfully by Missouri's system of public and independent colleges and universities, a new vision of higher education is needed. Not only will this new vision need to build upon the achievements of the past, it will also need to anticipate the future, be responsive to rapid technological change, and be steadfast in its commitment to the achievement of goals reflective of high aspirations for the system. One of the objectives of the Task Force on Critical Choices for Higher Education is to help develop a plan for shaping the future of Missouri higher education –a future in which new expectations for excellence are not only achieved but rewarded.

In order to secure their collective futures, the citizens of Missouri need a postsecondary system that is distinguished by the following characteristics:

- *Higher education and vocational training services of the highest quality that are truly competitive on a national level;*
- *A coordinated, balanced, and cost-effective delivery system;*
- *A range of vocational, academic, and professional programs affordable to all citizens with the preparation and ability to benefit from the programs;*
- *Differential institutional missions both among and within sectors designed to meet state needs and goals with a minimum of program duplication; and*
- *Systematic demonstration of institutional performance and accountability through appropriate assessment efforts.*

To achieve this new vision, Missouri's colleges and universities will need to develop more sharply focused missions, establish more effective partnerships with schools and other organizations, analyze their employment practices in terms of the number of administrative and non-faculty personnel they hire, make better use of technology, and enhance academic excellence through systematic documentation of results. The transition to this future will be discomforting to the complacent or to those who are content with "business as usual." This transition must, however, be made if the system is to provide the highest quality educational opportunities for all Missourians.

In order to achieve these lofty goals, a set of public policy initiatives is needed that will lead to a new era in Missouri higher education –an era in which the system of higher education is designed to preserve and enhance institutional quality and performance in an environment of limited resources. The Coordinating Board's goal is to design a system of higher education which utilizes resources effectively and addresses statewide needs.

Meeting this challenge requires that Missouri's system of higher education be viewed as an integrated whole rather than as a collection of individual institutions. The vision of the past in which each institution pursued its own ends, without significant regard for the role, scope, mission, and funding of other institutions, is no longer desirable. The development of a ***new*** *plan for the system of higher education requires that thoughtful consideration be given to those fundamental elements which define the system of the future: institutional missions; funding policies; and governance.*

The goals, performance, and outcome measures for Missouri higher education recommended by the Task Force on Critical Choices in 1992 were reaffirmed in 1996 by the CBHE statutory Presidential Advisory Committee. In June 1996, the Coordinating Board for Higher Education incorporated them into its ***Blueprint for Missouri Higher Education.***

The contribution the state's system of higher education has made, and continues to make to the overall welfare and benefit of all Missourians, is the result of statewide planning. This planning is the result of involving all sectors of higher education as well as citizen groups interested in addressing critical issues facing the state of Missouri. It also demonstrates how higher education can be engaged in advancing the goals and aspirations of all the state's citizens.

Higher education's current plan for the future is described in the Coordinating Board's ***Blueprint for Missouri Higher Education.*** The ***Blueprint*** is focused on providing Missourians with a system of higher education that is student centered, learner success oriented, and attentive to Missourians' needs for lifelong learning. To accomplish this, the board's plan recognizes that learning opportunities need to be available any place at any time, be needs-based, flexible, performance-based, and delivered through expert instruction. Access to the system of higher education is provided through initiatives that make the system financially, geographically, and programmatically accessible. The quality of the system is described in the plan in terms of appropriate measures associated

with teaching, learning, research, and service. For the state's system of higher education to be as efficient as possible, it must be performance-based, maximize the impact of funding, minimize unnecessary duplication, and maximize the sharing of resources.

Strategic initiatives to meet the state's goals for higher education and included in the ***Blueprint for Missouri Higher Education*** include the State Plan for Postsecondary Technical Education, plan for a Telecommunications-based Delivery System, Institutional Mission Review and Enhancement, Funding for Results, and the Missouri Student Assistance Resource Services (MOSTARS).

Postsecondary Technical Education Plan

Following the passage of Senate Bill 101 in 1995, Section 178.637 RSMo, in 1996, the Coordinating Board adopted a statewide plan for postsecondary technical education to meet the demands for skilled technicians in Missouri. The plan is built around regional partnerships among the community colleges, area vocational technical schools, Linn State Technical College, the state's private career and proprietary schools offering technical programs, as well as public and independent four-year colleges and universities and the state's interdepartmental workforce development system. Regional planning done by the Regional Technical Education Councils (RTECs), which include business and education leaders as well as representatives from other local and regional planning groups, seeks to utilize available resources and expertise to address the need for a highly skilled workforce, particularly in programmatic areas not available and geographic areas not served by community colleges.

Telecommunications-based Delivery System

The 1996 report from the Coordinating Board's Telecommunications-based Delivery System Resource Group and the implementation plan recommended by the board's Telecommunications Advisory Group in 1997 laid the groundwork for providing financial, geographic, and programmatic access to higher education through a telecommunications-based delivery system. In 1996, the Pew Higher Education Roundtable focused discussion in Missouri around the use of technology in higher education and led to the expansion of MORENET, the state's backbone to the Internet and the creation of MOBIUS, the common library platform which provides student and faculty access to the library collections of the 50 participating public and independent colleges and universities. The board's Committee on Technology and Instruction, appointed in December 1998, will continue to work toward the implementation of a system of higher education that utilizes technology to both accelerate learning and advance access to the state's system of quality higher education.

Institutional Mission Review and Enhancement

Public colleges and universities in Missouri are focusing their missions and enhancing the quality of public higher education through the five-year mission review cycle established by Section 173.030 (7) and (8) RSMo, and adopted by the Coordinating Board in June

1995. Each of Missouri's public colleges and universities is establishing a unique role that is performance-based and seeks to enhance the quality and further the differentiation of the state's system of higher education (see Mission Review and Enhancement brochure located in Appendix A).

Funding for Results

The board's Funding for Results program holds institutions accountable for quality results in the missions they choose and for continuous quality improvement. Funding for Results promotes and acknowledges results that are related to access, quality, and efficiency by reinforcing institutional achievement, recognizing student performance, responding to state and national priorities, and refining institutional missions. In addition, incentives are provided for institutions to acknowledge and reward teaching and learning improvements.

Missouri Student Assistance Resource Services (MOSTARS)

In October 1997, the Coordinating Board approved a new organizational structure within the Department of Higher Education called Missouri Student Assistance Resource Services (MOSTARS). MOSTARS provides resources and information to ensure that Missouri citizens have an opportunity to finance postsecondary education. MOSTARS is the board's one stop shop for state scholarship and grant student financial aid, federal student loans, information, and other resources helpful to students and parents in financing postsecondary education in Missouri.

The board's ***Blueprint for Missouri Higher Education*** and the strategic initiatives to implement and refine it were guided by the mission of the Coordinating Board and its staff at the Department of Higher Education. The Coordinating Board exercises leadership and fosters a public policy framework to achieve a seamless, integrated, and articulated system of public, independent, and private career school higher education.

The board's values and strategic initiatives included in the ***Blueprint for Missouri Higher Education*** are intended to ensure that all Missourians have access to appropriate, affordable, and high-quality training, teaching, research, and public services through the state's system of higher education.

It is within its historic and current strategic planning initiatives related to the fulfillment of its mission that the Coordinating Board for Higher Education adopted its charge to the Missouri Commission on the Affordability of Higher Education. As the Affordability Commission begins its deliberations, it is useful to understand and know the characteristics of Missouri's system of higher education, which provide one context for

II. Overview of Missouri's System of Higher Education

Missouri's system of higher education can be characterized by its size and scope, diversity, institutional autonomy, results and contribution to the state's workforce development system as it works collaboratively to meet the education, research, and service needs of Missouri citizens. Charts 1 to 13 in Appendix C provide a detailed overview of the state's system of higher education. In summary, these charts show the following.

Size and Scope

Missouri higher education is the fifteenth largest system of higher education in the United States (1995). Only fourteen states have systems larger than Missouri: California, New York, Texas, Illinois, Florida, Pennsylvania, Michigan, Ohio, Massachusetts, North Carolina, Virginia, New Jersey, Georgia, and Wisconsin.

In fall 1997, Missouri's public, independent, and proprietary schools enrolled more than 320,000 students, and conferred more than 68,000 certificates, diplomas, and degrees in FY 1997. Nearly 81 percent of the state's higher education enrollees are Missouri residents; nearly 15 percent are residents of other states. In addition, of Missouri's high school seniors who go on to college, 16 percent choose to attend college in another state.

Fifty-nine percent of all students are enrolled in public institutions, forty-one percent in the independent and private career school sectors. Almost 70 percent of Missouri's full-time undergraduate students are between the ages of 18 and 21; however, more than one out of five, 21 percent, are between the ages of 22 and 29. More than 86 percent of all students are Caucasian, and 9 percent are African America. The majority of students (57 percent) are women.

Approximately 50 percent of all undergraduate degrees are conferred in business-related fields and arts and humanities. Less than 10 percent of all undergraduate degrees are conferred in technical fields such as computer science and engineering-related disciplines.

Nearly 40,000 people are employed by the state's public and independent colleges and universities, 32 percent of all employees are faculty. The size and scope of Missouri's system of higher education is also represented by a total current fund operating revenue amount that exceeds $4.8 billion. The state's three independent universities (Saint Louis University, Washington University, and Webster University) comprise 43 percent of the state-wide total in operating funds; the University of Missouri system 28 percent.

The colleges and universities derive their revenue from different sources and in different proportions, i.e., percent from tuition and fees, etc. For example, the University of Missouri campuses, collectively, derive 28 percent of their revenue from tuition and fees which compares to 26 percent for the state's three private, doctoral degree-granting universities, i.e., Washington University, Saint Louis University, and Webster University.

Nearly 31 percent of the state's public baccalaureate and master's degree-granting college and university revenue comes from tuition and required fees which compares to 59 percent for Missouri's independent baccalaureate and master's-degree granting colleges and universities. In contrast, tuition and fee revenue at the state's public two-year community colleges represents about 21 percent of all revenue used to finance institutions' educational and general operating expenses.

Financial aid is important to students financing their higher education. In FY 1997, 116,345 students, nearly a third of all students enrolled, received some form of need-based student financial aid. Student financial aid is more than a $1 billion business. The average sticker price, or tuition and required fees, for typical full-time undergraduate students in 1997-98 varies from $1,940 at Missouri's public community colleges to nearly $16,000 at the state's two independent research universities: Washington University and Saint Louis University. The greatest percentage of full-time undergraduate students (32.8 percent) are enrolled at institutions where the sticker price is between $2,000 and $4,000 per year, 19.6 percent pay less than $2,000, and 20.7 percent pay between $4,000 and $5,000 per year. Only one in ten students in Missouri higher education are enrolled in institutions where the sticker price for tuition and fees is more than $10,000.

Institutional Diversity

Geographic and programmatic access to instruction, certificate, diploma, and degree programs, research, and services are provided by a variety of Missouri public, independent, and private career schools that serve different clientele through a wide array of institutional missions. The state's system of higher education is composed of the following institutions:

- Four doctoral degree-granting and research campuses in the University of Missouri system and University Extension Division
- Three independent doctoral degree-granting universities
- Four public master's degree-granting universities with focused statewide missions: Lincoln University, Truman State University, Central Missouri State University, and Southwest Missouri State University
- Two public regional master's degree-granting universities – Northwest Missouri State University and Southeast Missouri State University – that, in partnership with other participating institutions, provide geographic and programmatic access to higher education instruction, research, and service across their respective regions of the state through the Northwest Missouri Educational Consortium and the Southeast Missouri Educational Consortium
- Three regional baccalaureate degree-granting state colleges: Harris-Stowe State College, Missouri Southern State College, and Missouri Western State College

- Twenty baccalaureate- and master-degree granting independent colleges and universities

- Twelve public community college districts providing access to workforce development, academic transfer programs, and postsecondary technical education in over 60 communities across the state both inside and outside their local taxing districts

- One state two-year technical college

- Three independent two-year colleges and 31 independent, professional and technical, and theological colleges and universities

- One hundred and twenty-one private vocational and career schools offering one or more programs of study and technical training

- Fifty-eight postsecondary area vocational/technical schools offering adult courses and programs under the jurisdiction of the State Board of Education and supervised by the Missouri Department of Elementary and Secondary Education

- Two hundred private postsecondary schools offering programs leading to licensure and/or certification under the jurisdiction of the Missouri Department of Economic Development

In addition, numerous regional and statewide telecommunications and computer-based networks operate to provide access to learning opportunities provided by the state's public and independent colleges and universities. These include:

- BEARnet and GRIZZnet in southwest Missouri;
- SEEnet in southeast Missouri;
- KMOS public television operated by Central Missouri State University, and Central's partnership with schools, colleges, and universities through the Western Missouri Educational Technology Consortium;
- The University of Missouri and Cooperative Extension operate statewide telecommunications networks (Telecommunication Community Resource Centers) and support learning activities through extension programs;
- MOREnet, the state's link to the Internet, is a cooperative initiative of the state's colleges and universities, elementary and secondary education, and businesses and industries, as well as state government; and
- MOBIUS is the common library platform that will bring the library holdings of almost every public and independent college and university within easy electronic access to students and faculty at the 50 participating Missouri institutions of higher education.

Institutional Autonomy

The extent of institutional autonomy and the decentralized character of Missouri's system of higher education is demonstrated by an international study of institutional governance in 16 European countries and 25 states in the United States. That study reported that Missouri was ranked the third most autonomous and decentralized system of higher education that provides Missouri colleges and universities with a high level of institutional autonomy. For the study, decentralized systems and institutional autonomy were defined by the authority and responsibility of institutional governing boards to hire and fire college and university presidents, to set admission requirements and required tuition and fee rates, to retain tuition and fee revenue, to sue and be sued, to raise income through the issuance of bonds, and to enter into private and proprietary agreements and contracts with other organizations.

There are ten public institutional governing boards appointed by the governor for the state's public four-year colleges and universities. In addition, the governor appoints members to the Linn State Technical College governing board. The 12 community college boards of trustees are locally elected from the colleges' taxing district. Each of the self perpetuating independent college and university governing boards are appointed by the institution. The state's private career schools are governed either by their respective owner/manager or the board of their corporation. In addition, numerous advisory committees, including 12 regional technical education councils, provide direction to the instructional, research, and service functions for selected programs.

Activities and functions of the state's colleges and universities are also affected by the actions of several departments of state and federal government, including departments of education, higher education, labor, social services, economic development, and corrections. Recent changes in workforce development legislation, the federal Workforce Investment Act and the 1998 amendments to the federal Higher Education Act, also impact the activities, actions, and decisions of the state's colleges and universities. These actions and decisions directly or indirectly affect the cost of higher education and the delivery of courses and programs as they relate to performance assessment and compliance with federal and state laws. Many of these federal and state workforce development decisions and actions occur outside the statewide planning, policy development, and budget recommendation responsibilities assigned to the Coordinating Board for Higher Education by the Missouri Constitution and state statutes

Results

Notwithstanding the size and scope, diversity, and institutional autonomy that characterizes Missouri's system of higher education, the results of the state's initiatives to increase access, improve quality, and increase efficiency are significant as is the system's impact on the state's workforce development system. Examples of these results are included in Appendix D.

As the above outlined differing characteristics of higher education institutions that impact the cost, price, and affordability, so too, do the economics and financing of higher education described in the following section of this report.

III. Observations on the Economics and Financing of Higher Education

Despite the need to manage higher education more efficiently and effectively, and despite the similarities in management skills and resources required, higher education operates in a different economic and financial environment than the typical for-profit business. There are at least a half dozen economic characteristics that differentiate higher education economically from its for-profit counterparts.

Henry Hansmann (1968), of Yale University, describes the defining characteristics of nonprofit organizations, like higher education, as one of "non-distribution constraint." While nonprofit organizations can make a profit (realization of a positive fund balance), they cannot distribute those profits to stakeholders. The reality of this attribute plays itself out in the reduced pressure to gain operating efficiency for the benefit of investors.

A second characteristic of nonprofit organizations is that managers are motivated by idealistic goals. They care about educational excellence, opportunity and access, and diversity. The best example of this idealistic motive is seen in the provision of need-based financial aid.

A third feature of nonprofit organizations is that they can be categorized according to revenue sources. Some organizations are "donative nonprofit" entities in that they rely on charitable donations to operate. Examples of "donative nonprofit" organizations include churches, public broadcasting stations, and CARE. Other organizations are "commercial nonprofit" entities that sell a product or service for a price. Examples of these organizations include hospitals, nursing homes, and mutual insurance companies.

Colleges and universities are a mix of both donative and commercial nonprofit enterprises. Part of their income comes from sales revenue (tuition and fees) and part comes from charitable contributions (endowments, gifts, and government appropriations). With these two sources of income, higher education institutions are not forced to charge a price that covers their full production costs. To the extent that they have donated revenue, colleges and universities can provide a subsidy for their customers by selling an expensive product at a cheaper price.

A fourth characteristic of the nonprofit market is the imperfect nature of consumer information. Higher education is an investment in human capital whose return is not realized for 20 to 30 years in the future. Because the investment is frequently, and historically has been a once-in-a-lifetime decision, there is a strong tendency to avoid risk and play it safe by buying what other people consider the best buy. Thus, reputation looms large in the consumers' decision to select one institution over another.

Higher education, unlike other nonprofit organizations, exhibits a unique feature in the production of its primary product – education. In the production process (teaching/learning) students help educate other students. Empirical studies consistently show that enrolling high quality students, other things being equal, leads to a better

education (Astin, 1977; Feldman and Newcomb, 1969; Pascarella and Terenzini 1991). Because the "peer effect" influences quality, colleges and universities focus intently on whom they sell their products to through their admissions policies and standards, even to the extent of eliminating access for certain segments of the market. This tactic hardly represents the anonymous, indifferent market of traditional economic theory.

The final economic distinction is that institutions of higher education differ significantly in the price they charge for the same dollar's worth of their product (education). Institutional pricing appears to be strongly influenced by the ability of institutions to provide subsidies to their customers. In fact, these subsidies come in six distinct forms (Lenington, 1996).

1. Tax exemption – higher education is exempt from paying taxes on activities that are education related.

2. Government and organizational support – public institutions' costs are subsidized by state income and sales taxes, gaming and lottery revenues, and local property taxes.

3. External financial aid – students are directly subsidized by grants from government agencies, foundations, and other third-party participants, including institutional endowments.

4. Cost avoidance – higher education receives funds through private giving that allows institutions to avoid spending their own capital. These gifts may fund buildings, capital equipment, endowed chairs, and academic programs.

5. Working capital investments – higher education can generate working capital on various activities independent of its primary mission as a means of financing instruction and research. Examples include annual giving for general operations, transfer of earnings on quasi-endowments for use in support of operations, and earnings from auxiliaries and ancillary services.

6. Internal financial aid – institutional financial aid is essentially a transfer of tuition cost among students and is realized by means of discounting. Typically, the tuition rate is set sufficiently high to enable the institution to discount in whole or in part the tuition charged to some students. In effect, the full paying student pays a portion of the tuition charged for other students who exhibit need, merit, or other special skills and abilities.

Each of these subsidies can directly influence the pricing policy and pricing structure that an institution adopts. Any changes in these subsidies can have a profound effect on the financial stability and viability of the institution as well.

A Simple Economic Model

By consolidating Hansmann's conceptual ideas about the economics of higher education, it is possible to formulate a simple economic model for higher education based on three fundamental precepts.

- Colleges and universities use their donated resources, which are financial subsidies, to influence the quality of students they enroll.

- Student quality is a direct signal of college quality. The higher the quality of the institution, the greater the student demand.

- The market structure of higher education is hierarchial, not flat like the competitive market of the business world. The structure is not based on size, i.e., number of institutions or number of customers (students), as in oligopolies of economic theory. Rather, the structure is determined by the size of donated wealth.

Despite the fact that the higher education market is separated along regional and sometimes ideological lines, as in the case of denominational institutions, it is highly hierarchical and differentiated by the amount of wealth derived from donated sources. Wealthy schools are often characterized by large subsidies, excess demand, and student selectivity. Schools with less wealth are often characterized by minimal subsidies, excess supply, and open admissions. In the middle are colleges and universities, primarily public four-year baccalaureate and master's degree-granting institutions, that are attempting to balance the quality/access issue and deal with the complex task of managing enrollments in an environment of constrained resources.

The Anomalous Nature of Pricing Higher Education

The debate over college affordability has produced a profoundly confusing picture. One perspective is that college prices are quickly moving beyond the financial reach of many American families. Another perspective on the debate is that the problem of college affordability has been exaggerated and that the price of college attendance at public institutions continues to be "one of the best buys in the country" (Halstead, 1994, page 28). Hoxby, (1997) presents theoretical and empirical evidence demonstrating the ways in which the changing competitive market structure of American higher education from 1940 to the present affected college prices and quality. Notwithstanding the debate, a recent study conducted by the American Council on Education (1994), revealed that Americans believe investing in a college education is worth the money but do not think college is affordable. A 1997 survey conducted by the Midwest Higher Education Commission (MHEC) found that the second highest policy priority for higher education in Missouri among the state's public policy and higher education leaders is ensuring affordability of higher education; it is the highest priority among public policy leaders.

The National Commission on the Cost of Higher Education (1998) reported that the typical consumer of higher education products and services is confused about, and does not understand, the cost/price structures operating within higher education. This topic is, indeed, complex and often counter intuitive to traditional economic theory. Consider pricing as an example.

A major problematic feature of pricing in higher education is that many traditional economic relationships seem not to hold true, or hold true in anomalous ways that are unfamiliar to the consuming public and policy makers. Richard Yanikoski (1989) identified several aspects of higher education pricing that runs generally counter to the prevailing pricing wisdom in the for-profit sector of the economy.

Characteristics of Higher Education Pricing

Proposition 1
High demand rarely drives prices up; excess capacity rarely drives prices down.

Traditional economic theory holds that high demand relative to supply will drive prices upward, while excess supply relative to demand will drive prices downward. In higher education, the supply-demand relationship is not that clear. In higher education, high demand relative to supply often manifests itself in the form of restricted enrollments resulting from more selective admissions, rather than price increases.

Proposition 2
Increases in market share seldom drives prices down.

According to the traditions of the marketplace, successful expansion should result in economies of scale which in turn, permit stabilization of prices and eventual reduction. In practice, higher education does not behave in this manner. Enrollment increases seldom result in any reduction of per student delivery cost or price. Why? It appears that higher education as an enterprise is relatively immune to "economy of scale" efficiencies, except in very small institutions. Also, the marginal cost of educating more students may be disguised through increased class size or relying on part-time labor (faculty).

Proposition 3
Competition drives price up, not down.

Standard economic theory holds that increased competition ought to be reflected in constrained prices. Such is not the case in higher education. On the contrary, competition appears to drive prices upward. Several factors help explain why. First, the cost of recruitment of students, recruitment and retention of faculty, and the solicitation of external support is high and rising rapidly. Second, price is sometimes treated as a signal of quality and selectivity. The research indicates that many institutions that have imposed precipitous price increases more often than not have experienced an increase in demand, not decline. Third, in a period of rapidly escalating tuition prices and mounting

inter-institutional competition for students, there is often a price-leader phenomenon at work in the market place.

Proposition 4
Prices are loosely tied to delivery costs.

Unlike traditional economic theory which links production costs to price, the economics of higher education provide only a loose linkage between cost and price at most institutions. Changes in price seldom bear a consistent relationship to changes in costs. Several factors help confound the cost-price relationship. First, tuition revenue is intended to cover only a portion of total cost. From the idea that higher education serves the public good as well as the private purpose, it is customary to pass only a portion of total cost on to the customer. Thus, when aggregate expenditures change, some or none of the net new cost may be reflected in price. Another factor confounding the cost-price relationship is that cost information in higher education generally is too weak to support precise pricing. Even when historical cost analyses are conducted systematically, there are deficiencies in monitoring or predicting changes in marginal costs. Higher education is a complex economic activity, in which production functions overlap to such a high degree that it seems impractical to attempt to sort out marginal cost effects of student enrollment choices.

Proposition 5
What students and their parents pay is only loosely tied to price.

This feature of higher education pricing is closely tied to the previous proposition. Because of social benefit, higher education has operated for years with subsidization of a student's education. The effect of this subsidization has been noted previously.

Proposition 6
High tuition prices do not necessarily improve an institution's fiscal condition.

In the for-profit sector, the organization's bottom line is expected to improve when higher prices are imposed on steady or increasing sales. Unfortunately, it does not work that way in higher education. Colleges and universities are increasingly subsidizing tuition payments out of unrestricted operating revenue. With each significant price increase, there is a more than a proportional increase in the unmet need of students. Each new dollar of price that exceeds a student's ability to pay is a dollar that begs for more financial aid. Since government-sponsored aid has increased less than tuition, many institutions have more than doubled their expenditures for aid from unrestricted sources. The excess price discounting that occurs can lead to the erosion of an institution's financial health and leave no margin for qualitative improvements.

Pricing in higher education is basically and analytically soft activity, seldom driven by well-researched, broadly debated strategy. Clearly, this is why pricing in higher education is generally a judgment-ridden activity. Many widely accepted economic

principles governing pricing simply do not apply to higher education. If they do, they do so in weak and unusual ways at best.

The Revenue Theory of Cost

Howard Bowen (1970, 1980), in his work on higher education costs, provides a concise theory about what drives costs in higher education. Bowen's "revenue theory of cost" is based on the premise that an institution's educational cost per student is determined by the revenues available for educational purposes. Five underlying assumptions serve as the foundation blocks for this theory.

1. The dominant goals of higher education institutions are educational excellence, prestige, and influence.

2. In the quest for excellence, prestige, and influence, there is virtually no limit to the amount of money an institution could spend for worthwhile educational needs.

3. Each institution raises all the money it can.

4. Each institution spends all the money it raises.

5. The cumulative effect of the preceding assumptions is toward an ever-increasing level of expenditures.

Because higher education is financed from multiple stakeholders, i.e., federal, state, and local governments, student tuition, private gifts, grants, and endowments, there is no consensus or common voice among the parties about the marginal benefits of higher education. Thus, each institution has a "hunting permit" which gives them license to gather funds wherever they can find them. Costs, then, are determined by success in overall revenue development and vary widely from institution to institution. Bowen's theory serves to explain why some of the wealthiest colleges and universities in the nation are also the most expensive to attend.

Summary

The fiscal and operational aspects of higher education represent a complex system of economic exchanges that consists of imperfect market information, mixed revenue sources, multiple subsidies, anomalous pricing behavior, and a cost structure that is driven by available revenues. Because of these factors, the industry behaves in economically unfamiliar ways that are difficult to understand by the consuming public and policy leaders. The challenge facing institutions of higher education is to clearly and effectively communicate to consumers and stakeholders the nature of their costs, prices, and subsidies, and to be more accountable to the general public.

IV. The Changing Role of Tuition and Fees, Appropriations, Cost of Living and Per Capita Disposable Income

As noted in the previous sections, the cost to deliver education and the price institutions charge for that education are affected by a number of institutional characteristics. Some of these institutional characteristics include the following.

- Institutional mission
- Institutional control (public versus independent or private)
- Amount and type of available subsidies
- Clientele an institution serves and their level of academic preparation
- Emphasis on teaching, research, and public service
- Degree program/degree mix
- Program level
- Program accreditation
- Ratio of graduate to undergraduate enrollment
- Number of non-degree-seeking students
- Distribution of faculty by rank and number of years the core faculty have been employed
- Use of adjunct faculty
- Campus type (commuter versus residential and urban versus rural)
- Cost of living in the community/region/state where the institution is located
- Number of off-campus sites and students served
- Physical age of facilities and equipment
- Expenses for utilities
- Peer competitor institutions

Since these characteristics vary from institution to institution and have differing effects on the cost of instruction and consequently the price, it is difficult to compare the cost and price of one institution to another save for comparisons by institutional sector and level. Also, since "no absolute standards exist for evaluating education financing, state behavior can best be assessed through inter-state comparisons of current position and, as important, trend analysis" (Halstead, 1994, page 10). The following trends and related information are, therefore, presented to provide a historical context for the relationship between increases in the prices of Missouri higher education (tuition and fees) to other funding sources (state appropriations), and related indices (e.g., per capita disposable income).

Growth in Tuition and Fees Paid by Full-time Undergraduate Resident Students (1989 to 1999)

Between 1989 and 1999, tuition and fees increased for every sector of Missouri higher education. The increases in percentage terms during this period indicate that the independent institutions held their price increases over the last ten years lower than did the public sector institutions. The percentage change for each sector is as follows:

- 70 percent at the state's independent baccalaureate and master's degree-granting independent colleges and universities;
- 96 percent at the three independent doctoral degree-granting universities;
- 106 percent at the state's public statewide and regional universities;
- 121 percent at the state's public two-year community colleges;
- 153 percent at the state's three public four-year state colleges; and
- 156 percent at the University of Missouri system.

In addition to increases in tuition and fees, students experienced increases in room and board as well as books and supplies. Between 1990 and 1999, the average charge for room and board at schools with campus residence hall facilities increased from $2,755 to $4,412 or 60 percent. The average cost for books and related supplies increased from $461 to $719, or 56 percent

Even with these increases, persons attending Missouri institutions currently have a broad range of price levels available. For example, in 1999, the state's public two- and four-year colleges and universities charged full-time resident undergraduate students less than $4,300 in tuition and required fees for the academic year. The tuition and fees at independent baccalaureate and master's degree-granting colleges and universities averaged $9,866 in 1999. The price charged students attending the state's three independent doctoral degree-granting universities was $16,660.

Public Policies Affecting Growth in Resident Undergraduate Tuition and Required Fees (1974 to 1999)

Missouri's Public and Independent Four-year Colleges and Universities

For Missouri's public four-year colleges and universities, one of the major factors affecting the increase in full-time undergraduate tuition and required fee changes was the Coordinating Board's tuition and required fee policy decision of June 10, 1983. That public policy suggested that tuition and fee income should play the following role in financing public higher education in the state.

- *Tuition and fee income should reach 33 1/3 percent of the cost of education by fiscal year 1986 at the University of Missouri. The University, however, should carefully examine expenditure reduction and/or other revenue sources before exceeding 33 1/3 percent in the next two years.*

- *Tuition and fee income should be 28 percent of the cost of education by fiscal year 1986 at the five regional universities: Central, Southeast, Southwest, Truman, Northeast, Northwest, and Lincoln University.*

- *Tuition and fee income should be 26 percent of the cost of education by fiscal year 1986 at the state four-year colleges: Harris-Stowe, Southern, and Western.*

- *The Master Plan III policy that out-of-state tuition in all institutions should be twice the cost of in-state fees is reaffirmed.*

> (Excerpt from Coordinating Board for Higher Education, *Public Policies Affecting Missouri Higher Education Delivery System*, Section IV, Budget and Finance)

Chart 14 displays the cumulative percent change in average undergraduate tuition and fees charged by the state's public four-year colleges and universities and cumulative percent change in state appropriations for the operations of these institutions from FY 1974 and FY 1999. For the nine-year period between FY 1974 and FY 1983, state appropriations and tuition and fees increased at generally the same rate. For the next 15 years FY 1984 to FY 1999, the trend in cumulative growth in tuition and fees was higher than the cumulative growth in state appropriations.

Trends and changes in the appropriation of state revenue also have a profound impact on tuition and fees. If appropriation increases fall short of perceived revenue needs at the institutions, their governing boards may react by increasing tuition and fees. For example, there were only small increases in state appropriations between FY 1990 and FY 1994, largely due to the pressures on state revenue resulting from a recessionary economy. Institutional boards reacted to that situation by increasing tuition at higher rates during the same period. Increases in tuition and fees during the period were 12 to 15 percent while appropriations increased by only one to two percent per year. Chart 14 clearly displays this widening gap in increases between tuition and fees, and state appropriations. The proportion of the state budget that is allocated to higher education can also affect the affordability of higher education. Chart 18 captures the trend in this measure of Missouri's funding policies since 1974.

While state policies concerning student financial aid programs affect all institutions, the impact of trends in this area have the greatest impact on Missouri's independent colleges and universities. This impact is magnified by the fact that the maximum amounts awarded for both the Charles Gallagher Student Financial Assistance Program and the Higher Education Academic Scholarship Program (Bright Flight) have not changed since the programs were enacted.

Policy decisions of the general public can also have direct impacts on institutional policies toward tuition and fees. In 1991, the Missouri Business and Education Partnership Commission made a number of recommendations concerning the financial needs of Missouri's system of higher education. Among the needs identified by the Commission was $340 million in crucial one-time investments to address deferred maintenance on campus facilities and the acquisition of needed instructional equipment. In addition, the Commission identified $300 million in ongoing needs in the areas of building and equipment maintenance, state student financial aid programs, and educational program enhancement. With the defeat of this initiative by the voters in 1992, institutions of higher education had few options to fund these needs other than by increasing tuition and fees.

Missouri's Public Two-year Colleges, (1980 to 1999)

Missouri's community colleges are unique among higher education in the state in that they are the only sector that has the ability to levy direct taxes on a portion of the state's population. Because of the impact of this additional fund source and the fact that the available data on tuition and fees at Missouri's public two-year institutions prior to 1980 does not include average tuition data, a separate analysis of the public community college sector was necessary. Chart 15 displays the cumulative growth in both appropriations and tuition and fees indexed to base year 1980.

A number of policy and environmental factors have an impact on the trends in this chart. One of the most obvious is the addition of new institutions into the system. This sector has seen the addition of two new institutions during the time period displayed. This occurred in 1987 with addition of St. Charles Community College and in 1992 with the addition of Ozarks Technical College in Springfield. Another factor affecting the relationship between appropriations and tuition and fees was the implementation and funding of the State Plan for Postsecondary Technical Education following the enactment of SB 101 in 1995 that assigned a new state role and engagement between the community colleges and the state's workforce development system. This legislation included the addition of Linn State Technical College to the state's public system of higher education and mandated the review and revision of the state's approach to the delivery of postsecondary technical education.

Comparison of Growth in Tuition and Fees to Inflation Indexes and Missouri's Per Capita Disposable Income

Inflation indexes compare growth in real dollar terms. In every year since 1991, the cumulative increase in tuition and required fees for full-time undergraduate resident students in all sectors of Missouri higher education indexed to base year 1989, exceeded the cumulative increase in both the Higher Education Price Index (HEPI) and Consumer Price Index (CPI).

While much of higher education, including Missouri, measures inflation increases by citing the Higher Education Price Index, a typical basket of goods and services purchased by colleges and universities, some states use the Consumer Price Index, a typical basket of goods and services purchased by general consumers. The reason is that the CPI provides an external measure or benchmark for purposes of assessing changes in costs and prices in American higher education while the HEPI is an internal benchmark, meaning it is affected by the decisions and actions of the higher education community. Chart 16 shows the change in tuition and fees for all sectors of Missouri higher education compared to changes in both the Higher Education Price Index (HEPI), and the Consumer Price Index (CPI) to base year 1989.

Another external measure to which tuition and required fees are sometimes compared is per capita disposable income. In Missouri, with the advent of the Hancock Amendment and recent changes at the federal level in how personal income is calculated, the role of changes in personal income in determining the state's revenue and consequently its ability to support higher education is important. As is clearly evident from Chart 17, tuition and required fees in each sector is a greater proportion of Missouri per capita disposable income in 1997 than it was in 1989.

Summary

There are three major conclusions that result from this analysis of the relationship between tuition and fees and the state's public policy decisions about Missouri higher education. The first is that tuition and fees have grown in all sectors of Missouri higher education. While there is considerable variability between institutions and sectors, this observation is consistently seen throughout the data reviewed. Secondly, public policy actions have a direct and often profound impact on trends in tuition and fees. Public policy decisions and actions by the state legislature, the Department of Higher Education, and the citizens of Missouri have a direct effect on the financing of higher education and the decisions institutional governing bodies make about the price of higher education and how the cost to deliver higher education is financed. Third, the rate of tuition and fee growth in the last ten years has exceeded increases in a range of indexes of both cost and economic performance.

V. The Role of Student Financial Aid in Financing Missouri Higher Education

In discussing the issue of affordability of higher education, Bradburd, et al. (1990) described how the notion of affordability suggests the concept of choice:

> **Affordability is a more subtle notion than may first appear. There are important differences between being able to afford the "cheapest" postsecondary option available (which is usually a community college within walking distance); the most expensive option (typically an elite private institution); or some alternative in between (such as attendance at a state university on a resident basis).**

The traditional role of student financial aid is to help students and families have a broader range of choice in purchasing and financing their higher education than if they were left solely with the responsibility of financing higher education from their personal savings or other resources. In FY 1997, over $1 billion in student financial assistance was delivered to students in the state of Missouri. Three major sources comprise the total dollars that are delivered in student assistance: the federal government, the state of Missouri, and the institutions themselves. These sources of student assistance are awarded in the form of grants, work programs, loans, and scholarships based on financial need, merit, or ability. Unfortunately, there is not any integrated policy for financial aid across these three major sources of revenue for student financial aid.

Between 1991 and 1996 there were dramatic increases in the availability of student financial assistance:

- Federal need-based grant aid to Missouri students increased from $94 million to just over $101 million.
- The state's investment in direct aid to students through state scholarship and grant programs has increased from approximately $20 million to over $30 million. By 2000, this amount will approach $60 million.
- Institutional investment in financial aid has doubled from $94 million to $188 million.

However, in this same period of time there were equally dramatic increases in student borrowing:

- The total dollar volume of student loans in Missouri doubled from $174 million in 1991 to $350 million in 1996.
- The percentage of Missouri students borrowing increased from 23.8% in 1991 to 42.8% in 1996.
- The average yearly debt for borrowers increased from $3,020 in 1991 to $3,513 in 1996.

Federal Student Financial Aid

An underlying purpose of federal financial aid programs, particularly the major need-based programs such as the Pell Grant Program and the Federal Family Education Loan Program (FFELP), is to provide students with at least some of the resources necessary to access any postsecondary institution they plan to attend. Both the total cost of attending the school the student chooses and an amount that the student and the family are expected to contribute toward educational expenses are considered to determine financial need. The student's expected family contribution (EFC) is determined by a federal formula based on a family's income, assets, number of children in college, and other factors. The cost of attendance (COA) includes not just tuition and fees but also books, personal expenses, room and board, transportation, and other expenses. The average total cost of attendance at Missouri's colleges and universities participating in the state's need-based Gallagher Grant Program increased 78 percent between 1990 and 1999, from $6,218 to $11,098. (The National Cost Commission referred to cost of attendance as the Total Price of Attendance.)

The federal need-based programs, e.g., Pell Grant and work-study programs, are driven primarily by the expected family contribution. Students/families with lower expected family contributions; i.e., lower incomes, fewer assets, etc., are eligible for Pell grants and work-study in higher numbers and amounts. Student loans are used to cover remaining costs after grant and scholarship sources have been applied. Thus, students with higher costs of attendance, or students without other aid, are more likely to borrow, and likely to borrow more. These programs are based on financial need, but may not be exclusively targeted to serving the lowest income students. Students with similar family situations attending differently priced schools may be eligible for different amounts or forms of aid.

Charts 19 and 20 illustrate the distribution of federal student financial aid in the public two- and four-year sectors, independent, and private career (proprietary) school sectors between FY 1991 and FY 1996.

Missouri Student Financial Aid

The same factors for demonstrating need apply to Missouri's need-based financial aid programs. (Unlike the federal government, the state of Missouri also provides financial assistance awarded on the basis of academic merit.) There are three major state need-based programs: the Charles Gallagher Student Financial Assistance Program, the Missouri College Guarantee Program, and the Bridge Scholarship Program. Even though the cost of attendance and the expected family contribution are used to determine financial need for these three programs, the statutory provisions and eligibility requirements specific to each program serve to target certain student populations, often in different institutional sectors.

- The Charles Gallagher Student Financial Assistance Program is the state's largest need-based aid program. In 1998, over $14.3 million was distributed to over 11,000

students, most of whom are in the independent sector, who demonstrated financial need.

- The Missouri College Guarantee Program will begin in the fall of 1999. There will be between $7 and $9 million to distribute to approximately 5,500 of the neediest (lowest EFC) students in Missouri. This program is funded primarily by dedicated proceeds from the Gaming Commission Fund.

- The Bridge Scholarship Program provides financial assistance to students who are under served by other state and federal programs. Bridge awards are made to freshman and sophomore students who do not have $2,000 of non-repayable aid from the Federal Pell Grant, Hope Scholarship Credit, and state Gallagher Grant Program. In 1998, the scholarship's initial year of operation, $4.9 million was distributed to over 7,000 qualified students.

The state's major merit-based program is the Bright Flight scholarship. The majority of students who benefit from this program are in the public sector. This program provides a $2,000 renewable scholarship to Missouri residents who, as high school seniors, achieve a top three percent composite test score on the ACT or SAT college entrance examination. In 1998 over $14 million was distributed to nearly 7,500 students under this program.

Another important financial assistance program is the A+ Schools program that is administered by the Department of Elementary and Secondary Education (DESE). This program covers community college tuition and fee costs for eligible students who graduate from high schools certified as A+ schools. In the fall semester of 1998, 944 students from the 57 high schools currently designated A+ received this financial assistance. There are currently 75 candidate high schools seeking A+ designation, and DESE has proposed an expansion roll-out plan that would allow over 400 of the state's 481 high schools to receive A+ designation by the year 2008, with the last 40 schools being designated by 2011. Obviously, the shape this program takes in the future will have major budgetary implications for student financial assistance, and will thus impact on many aspects of Missouri higher education finance and policy.

Beginning with the 1999-2000 academic year, two more new state student financial assistance programs, that were authorized by the 1998 Missouri General Assembly and signed into law by Governor Carnahan, will begin serving students. These programs are the Advantage Missouri and the MOSTARS Higher Education Savings programs.

The Advantage Missouri Program will provide need-based, forgivable loans to students entering certain high demand fields. Governor Carnahan's FY 2000 executive budget includes a request of $2.9 million for the Advantage Missouri Program. This level of funding will provide loans to approximately 1,200 such students.

The MOSTARS Higher Education Savings Program provides certain state and federal income tax incentives for families to save for the future costs of higher education. This program will be implemented and begin accepting deposits in the fall of 1999.

This collection of state programs and the rapidly increasing volume of associated dollars present a myriad of policy issues and questions regarding how the state provides financial assistance to students. Major issues involve the integration and articulation, or the lack thereof, between programs; the financial and educational impacts of distributing aid among different institutional sectors according to varying criteria; and the ability of the system to respond to a changing higher education marketplace. This picture is made even more complex when the aid individual institutions provide to students is considered.

Institutional Student Financial Aid

In addition to assistance from federal or state sources, individual postsecondary institutions also award financial assistance. This aid is commonly referred to as institutional aid. Charts 21 and 22 show the distribution of institutional aid in the public two- and four-year sectors, and the independent and private career school sectors according to either need- or merit-based award criteria. All charts indicate data for FY 1991 and FY 1996.

The Role of MOSTARS

The Coordinating Board for Higher Education, in its ***Blueprint for Higher Education***, emphasized the importance of improving and providing financial access for Missouri's citizens to the state's system of higher education. In response to these critical issues, MOSTARS, a division of the Missouri Department of Higher Education, was created by the CBHE in the fall 1997. MOSTARS provides resources, assistance, and customer services promoting access to postsecondary education for student, parents, postsecondary institutions, lenders, high schools, secondary markets, legislators, and state government agencies.

To provide financial access, MOSTARS currently administers 11 state and federal student financial assistance programs. The following four programs listed are the largest state programs, which will provide approximately $37 million to estimated 26,000 eligible Missouri residents in FY 2000:

- Charles Gallagher Student Financial Assistance Program;
- Higher Education Academic Scholarship (Bright Flight) Program;
- Marguerite Ross Barnett Memorial Scholarship; and
- Bridge Scholarship.

MOSTARS also administers the Federal Family Education Loan Program (FFELP), known as the Missouri Student Loan Program (MSLP), on behalf of the U. S. Department of Education. It is projected that the MSLP will process nearly $310 million in student loans for more than 80,000 eligible students in FY 2000.

Another major task of MOSTARS is to provide outreach activities that promote early awareness of postsecondary opportunities in Missouri. To accomplish this task, MOSTARS currently provides free information and services to middle and high school students, counselors, and parents statewide. These services are delivered in a variety of ways such as newsletters, brochures, and on-site visits at high schools.

To enhance the area of early awareness, MOSTARS plans to initiate new projects during the next several months. Those include targeting high schools that historically have a low college attendance rates, direct mailings to the homes of Missouri families, developing partnerships with postsecondary institutions regarding TRIO Programs, and participating in new federal programs that focus on college awareness activities.

The MOSTARS Information Center provides an ongoing service to postsecondary institutions, high schools, Missouri citizens, and state government. Approximately 600 to 700 telephone calls are received weekly at the center. Furthermore, the Information Center responds to written correspondence and distributes packets of materials statewide pertaining to financial access to Missouri's system of higher education.

Summary

Student financial aid is a major revenue stream for the state's public and independent colleges and universities. In addition; financial aid is becoming an increasingly important aspect in how students and families finance postsecondary education in Missouri. There are important public policy issues that revolve around issues of whether financial aid should be distributed on the basis of financial need, merit, ability, or loans, and whether or not some balance between these should be achieved. Chart 23 shows the 1991 and 1996 distribution of financial aid from all sources according to award criteria — need, merit ability, or student loans. The chart illustrates the current trends of rapid growth in student loans, moderate growth in merit-based awards, and little, if any, growth in need-based awards. This trend in need-based aid is particularly acute in the public sector.

There are also questions regarding the design of need based financial aid programs and the degree to which they target students who are low income and have the least ability to finance their education beyond high school. The outcome of these public policy discussions will have a profound effect on students, families and institutions. Additionally, the rapidly increasing institutional budgets for student assistance are also presenting serious financial pressures within postsecondary institutions. Student financial assistance is a one billion dollar a year enterprise. Yet despite these dollars, state and federal outreach activities, and new legislative initiatives, many Missouri students and families continue to legitimately believe that study beyond high school is financially out of their reach and/or are intimidated by the thought of having to take out a student loan to help them finance their postsecondary education.

VI. The Challenge to States by the National Commission on the Cost of Higher Education

The public's growing anxiety over rising college costs and tuition prompted Congress last year to convene the National Commission on the Cost of Higher education. The 11-member commission was asked to:

- provide accurate information on college costs,
- examine factors that contribute to rising college prices,
- make specific recommendations on how to curb tuition increases, and
- to advise Congress on college costs during the Higher Education Act reauthorization process.

The 11 specific issues addressed by the commission provide a backdrop for the commission's report, ***Straight Talk about College Costs and Prices***. The wide-ranging recommendations of the Cost Commission constitute a framework of shared responsibility for maintaining access to higher education at an affordable price. The commission reached the conclusion, however, that much of the responsibility for college affordability must be shouldered by academic institutions.

Straight Talk achieved its primary goals, namely to clearly delineate issues of price (what students are asked to pay), cost (what institutions spend to provide educational and related services to students), and subsidy (which cover the portion of institutional expenses that tuition does not cover); to convey essential facts about trends in college affordability; and to identify major cost drivers in higher education. At the core of this discussion rests the higher education basic operating equation:

Cost - Sticker Price = General Subsidy (federal, state, institutional)

which reveals a deep structural difference that exists between colleges and business institutions where the equation is exactly reversed:

Sticker Price –Cost = Profit

By way of example, if a car dealership operated under the higher education not-for-profit model, it could well end up selling cars that cost the dealership $20,000 for $5,000. This analogy is at the core of economic reality of American higher education.

Assuming that higher education in Missouri is a microcosm of the national higher education scene, the following findings and recommendations of the National Cost Commission are also of importance for Missouri's discussion on the affordability of higher education.

Cost Drivers in Higher Education

1. *Human Resources.* Higher education is a labor-intensive industry, and labor structures at colleges and universities contribute to costs.

2. *Regulatory Requirements.* For example, to dispose of an ounce of toxic chemical, the college chemistry lab must comply with the same federal regulations as the manufacturer handling tons of the same material.

3. *Technology.* Building technology infrastructure, short-depreciation periods, and keeping pace with technological advances continue to be cost drivers.

4. *Facilities.* Maintenance and repair of aging facilities and meeting special needs of students are identified as a major cost driver in the next decade.

5. *Moving Target of Expectations.* Providing services and facilities that meet increasing student demands to stay competitive is becoming increasingly difficult.

Recommendations from the National Commission

1. Academic institutions should intensify their efforts to control costs and increase institutional productivity.

2. The academic community should provide better consumer information about costs and prices and improve overall accountability to the general public.

3. Deregulate higher education to emphasize performance instead of compliance, and differentiation instead of standardization.

4. The academic community should develop accrediting processes that relate institutional productivity to effectiveness in student learning.

5. Continue the existing federal student aid program and simplify and improve the financial aid delivery system.

Unfinished Agenda

The commission identified the need to follow up on the following issues:

1. *Part-time and Non-traditional Students.* How much financial aid do they receive? What does it cost to educate them?

2. *Proprietary Schools.* What is the price and cost of attendance? How much financial aid do these students receive?

3. *Cost and Quality.* How are higher education programs affected by changes in costs? What are the costs and productivity of graduate programs?

4. *Technology.* How can technology be used to reduce costs?

5. *Saving for College.* What opportunities and assistance would encourage families to save for education?

6. *Business Connection.* How can businesses be involved to help reduce the cost of education?

7. *Information Needs.* What information and assistance would help parents and students make informed decisions about attending college?

College Cost Provisions of the Higher Education Amendments of 1998

Many of the commission's recommendations, which require federal, state, and institutional coordination and implementation, have been incorporated into the 1998 amendments to the Higher Education Act.

In its report, the commission called for and Congress included in the amendments to the Higher Education Act a requirement that colleges and universities provide:

- increased disclosure of campus financial information,
- improved market information and public accountability,
- comparable data among public and independent institutions, and
- consistent methodologies for reporting institutional revenues and expenditures.

The long-term impact of these and the commission's other recommendations that call on higher education institutions to become "fiscally transparent," is readily discernable in the College Costs provisions of the Higher Education Amendments of 1998. These provisions require institutions to be clear about their costs to deliver higher education and how the price, tuition and fees, is set to meet those costs. The United States Congress, through it's new provisions in the Higher Education Act:

- Requires the Secretary of Education to present to the public each year, in an easily understandable form, a report comparing the tuition and fees at colleges across the country. The National Center for Education Statistics is directed to collect those data annually from all institutions that participate in Title IV of the law, beginning with the 2000-01 academic year. To do this, the center is directed first to convene forums to develop nationally consistent methodologies for reporting college costs. The Commissioner of Education Statistics is directed to develop standard definitions, and the center is to report the definitions for the following to all colleges within 90 days of the enactment of the law:

- Tuition and fees, and the cost of attendance, for a full-time undergraduate;
- The average amount of financial aid received by an undergraduate student at an institution, including each type of assistance received, such as institutional aid and fellowships from private sources; and
- The number of students receiving federal financial aid, institutional aid, and fellowships from private sources.

- Requires the Commissioner of Education Statistics to conduct a national, longitudinal study on college costs and the factors that drive them. The study, to be delivered to Congress by September 30, 2002, is to include information on:

  - Changes in tuition and fees;
  - Trends in expenditures for faculty salaries and benefits, administrative salaries and benefits, academic support services, research, and operations;
  - Methods for evaluating institutional expenditures for construction and technology and the potential cost of replacing instructional buildings and equipment; and
  - The extent to which institutional student aid and discounting policies affect tuition increases.

- Requires the Bureau of Labor Statistics, in consultation with the Commissioner of Education Statistics, to develop a higher education market basket, identifying items that make up the costs of higher education, and to provide the report to Congress by September 30, 2002.

- Imposes a $25,000 fine on any college that fails to provide information on its costs and prices in a timely and accurate way to the Center for Education Statistics.

- Directs the Secretary of Education to survey the student aid recipients of all types at least every three years in order to identify the population of students receiving federal aid, determine the income distribution and other socio-economic characteristics of aid recipients, describe the combination of aid from state, federal, and private sources received by students from all income groups, and describe the debt burden of student loan recipients and their capacity to repay those debts.

- Allows colleges to offer new incentives for early retirement to tenured professors as one possible way to drive down college costs.

These provisions will have a direct impact on the ways colleges, state boards of higher education, the National Center for Education Statistics, and the U.S. Department of Education collect, interpret, and disseminate information on college costs. Implicit in the legislation is its long-term impact on public policy issues, ensuring that the affordability of higher education remains high on the agendas of the policy makers and educational community.

VII. Missouri Coordinating Board for Higher Education Initiatives and Policies Affecting Affordability

The Coordinating Board for Higher Education is taking its mandate to provide accessible and affordable higher education to Missourians seriously. Major statewide initiatives continue to be underway to contain both institutional costs and student tuition.

Mission Differentiation

Distinct missions among Missouri's public higher education institutions (described in the brochure located in appendix A) foster implicit cost savings to the institutions. Mission differentiation minimizes the duplication of programs that, if unnecessarily offered at multiple institutions, would ultimately suffer from declining enrollments. It allows institutions to focus their resources and to avoid non-productive competition and costly mission creep. It has led to limiting the number of public institutions that offer doctoral degree programs as well as remediation. It ultimately leads to the sharing of faculty, programs, facilities, and other resources. Mission differentiation also enables public institutions to differ in the amount of tuition they charge. Admission policies associated with differentiated missions provide institutions an opportunity to tailor their course and program offerings to a particular clientele. Consequently, students are provided with more educational and tuition choices in postsecondary education.

Data Collection and Analysis

The Coordinating Board has the authority, Sections 174.005.2 (7), (8), (9), Section 173.612.2 (4) and Section 173.750 RSMo, to collect, analyze, and report data and information about the state's system of higher education. Through state and federal institution- and student-based data collection systems, the board provides Missouri and its institutions with a central repository of uniform and consistent data and information about the size, scope, and performance of the state's system of higher education. This repository allows the board and institutions to efficiently undertake system-wide, sector, and institutional planning, policy analysis, and research. The repository provides for a balanced and objective overview of all higher education in Missouri.

Missouri Public Higher Education Funding Model

Each fiscal year the CBHE recommends a uniform higher education budget to the governor that reflects policy priorities developed in cooperation with all public two- and four-year institutions and student financial assistance. For over a decade Missouri's public four-year institutions and since 1993 public two-year colleges have received state appropriations using a funding model that has removed considerations of enrollment from the calculation of state funding. The funding plan has been computed individually for each college and university with emphasis on individual campus missions and program needs, faculty and staff compensation, inflationary and other campus budget requirements. Eliminating enrollment as a major element in funding computation provides the following advantages:

- Institutions have not been under excessive pressure to recruit students in order to maintain their "share" of state funding. As a consequence, institutions have been able to concentrate on program development to meet the needs of specific types of students and the state.

- This reduced pressure paved the way for successful implementation of legislation (SB 340 and SB 101) enhancing the CBHE planning responsibilities. Consequently, higher education has been able to structure itself as a system instead of a group of competing institutions.

- Although there has been a spirited competition among the institutions for new capital construction, those projects have typically been for specialized facilities or renewal and modernization of existing facilities without a great emphasis on the costly increase in square footage that might be required for large numbers of additional students.

Academic Initiatives

Development and implementation of a broad spectrum of statewide academic policies are aimed at ensuring that students have optimal access to postsecondary institutions in the state at an affordable price.

1. *High School Core Curriculum.* Requiring that high school students complete 16 units of core curriculum enables them to receive free and focused high school preparation for college. With this preparation, students are far less likely to need to pay for remedial education when they enter college.

2. *Dual Credit and Advanced Placement.* These initiatives provide high school students access to college-level courses/credits at nominal prices and provide an opportunity to save on college tuition by shortening the time to degree.

3. *Transfer and Articulation.* The statewide Credit Transfer Policy ensures an orderly process for transferring college credit from one institution to another. It enables students to transfer between institutions without having to lose course credit earned at another institution, or to pay twice for equivalent course offerings.

Funding for Results

The board's Funding for Results initiative is designed to promote and acknowledge results by reinforcing institutional achievement, recognizing student performance, responding to state and national priorities, and refining institutions missions. In its budget recommendations the CBHE includes both incentives and investments with a emphasis on results related to:

- reducing the time to degree completion,
- increasing graduation rates,
- improving student performance,
- contributing to the state's workforce development system,
- improving degree credit transfer and program articulation between the colleges and universities, and
- attaining by the public institutions their agreed upon missions; including their respective differentiated admissions standards adopted by their governing boards, i.e., open enrollment, moderately selective, selective, and highly selective.

Consortia

The Coordinating Board for Higher Education encourages and supports collaboration among institutions that make up Missouri's system of postsecondary education. By forming partnerships across institutional boundaries and with organizations outside the higher education community, educators are working collectively to better understand the needs of Missouri citizens and to forge new approaches in the delivery of educational programs and related services. As a result of using telecommunications-based instruction, consortia are able to increase educational opportunities and economic development in off-campus and under served areas.

Consortia provide both regional and technological collaborative opportunities for resource and information sharing among participating institutions. The mission of the consortia is to enhance access to postsecondary education opportunities in their regions by coordinating the delivery of conveniently accessible life long postsecondary learning opportunities through optimal combinations of delivery approaches within their regions. Missouri has several consortia of institutions working together to provide geographic, programmatic, and financial access to higher education. These include Regional Technical Education Councils (RTECs) as well as partnerships between and among public and independent colleges and universities. These partnerships include associate, baccalaureate, master's, and doctoral degree-granting institutions. Two regional consortia are described below.

1. *Northwest Missouri Educational Consortium.* This collaborative arrangement enables member institutions to meet the educational needs of students via technology and provides affordable educational programs to the rural, sparsely populated northwest region of the state.

2. *Southeast Missouri Educational Consortium.* This consortium was created to foster the delivery of accessible and affordable educational programs to the southeast region of the state. Its goal is to support economic development and to improve the quality of life in the region.

State Plan for Postsecondary Technical Education

Through the State Plan for Postsecondary Technical education, the state's secondary area vocational technical schools, community colleges, Linn State Technical College, and selected baccalaureate and master's degree-granting institutions are collaborating to provide geographic and programmatic access to a seamless postsecondary technical education delivery system from high school through the master's and doctoral degree levels. By utilizing the state's existing postsecondary technical education programs, faculty, and facilities, Missouri has developed an articulated postsecondary technical education and training delivery system and infrastructure without building new technical education and training schools, colleges, and institutes.

Telecommunications-based Delivery System

This system provides a framework for distance learning in Missouri higher education. Significant results have been achieved in controlling costs through increased inter-institutional collaboration and the initiation of cooperative degree programs.

1. *MOBIUS.* The Missouri Bibliographic Information User System (MOBIUS) is a consortium of academic libraries in the state. MOBIUS' implementation of the Common Library Platform will create a "virtual collection" of approximately 14 million items in the libraries of Missouri's colleges and universities. It will provide students free access to library materials using a personal computer and institutions a cost-effective approach to resource sharing and service delivery.

2. *MOREnet.* The Missouri Research and Education Network (MOREnet) provides reliable high-speed access to the Internet for higher education institutions, faculty, and students. It also provides a high-speed state network for serving the educational and research needs of Missouri.

3. *"Smart Catalogue."* When implemented, this web-based catalogue would provide comprehensive information on the courses and programs offered off campus by any higher education institution in the state. It would give students an efficient way to learn about course and program offerings available at any participating higher education institution in the state, as well as the opportunity to take classes either through distance learning or at the nearest location. This catalogue would be of particular assistance to non-traditional, working students, who for various reasons (work, family, low income, far away from the nearest campus) would otherwise not be able to attend college. In turn, institutions would have access to an additional pool of students without costly student recruiting activities.

MOSTARS

This is a one-stop support service for Missouri families regarding federal and state student financial aid information and assistance. MOSTARS administers state and federal student financial aid programs, including grants, scholarships, loans and

outreach/early awareness services. This centralized approach frees institutions from having to spend institutional resources to provide these services. It also gives students a simplified and efficient financial aid delivery assistance, ensuring that they receive all the aid for which they are eligible.

VIII. Summary of the 1998 Missouri Governor's Conference on Higher Education

The 1998 Governor's Conference on Higher Education, "Straight Talk about the Cost, Price, and Affordability of Missouri Higher Education," provided a statewide platform for initiation of a comprehensive dialogue on the affordability of college education. In his opening remarks, Governor Mel Carnahan urged Missourians to:

- work together to explore the cost drivers in Missouri higher education;
- identify cost-saving initiatives; and
- be considerate of how the prices institutions charge can either support or impede the access of Missouri citizens to higher education.

At the breakout and roundtable sessions, legislative leaders, college and university presidents/chancellors, chief executive officers of business and industry, and members of the governing boards shared their viewpoints on the college cost and price issues. Their discussion was broadly guided by the following questions raised by Dr. David W. Breneman, professor and dean of the Curry School of Education at the University of Virginia:

1. Should the market forces (however that is interpreted) displace public policy debate on the affordability of, and the state's strategy for, financing postsecondary education?

2. What is the fair share of educational costs for students and families versus the general taxpayer?

3. Should state's contribution vary by institutional type, e.g., community college, regional university, flagship campus, independent institution?

4. Should public tuition vary according to the income of students, with an understanding that a portion of tuition revenue is recycled into grants for low-income students?

5. Should states do anything to counter the growing imbalance of loans to grants?

6. Are there positive ways to encourage cost reduction in colleges and universities other than simply reducing state appropriations?

7. Is the much discussed but seldom implemented policy of high tuition coupled with high state student financial aid viable for the state of Missouri?

It was generally recognized at the breakout sessions that the affordability issues have no simple solutions and that they merit a further study. Hence, the participants at the 1998 Governor's Conference called on the Missouri Commission on the Affordability of Higher Education to address the following issues:

The State's Role

1. What is the state's role and who should pay for public higher education?
2. Should higher education be considered an entitlement?
3. What is the proper state/student funding balance?
4. How does change in state policy affect pricing decisions in the public sector?
5. Where does the state contribute to the private/proprietary sectors, and how much?
6. What is the role of the private sector in the state's higher education policy?

Cost/Price Issues

1. Who has the authority to set college tuition prices and how is it done?
2. Where are increases in institutional costs coming from?
3. What are institutions doing to contain tuition increases?
4. What is the tuition cost/degree benefit connection?
5. Are tuition increases hiding under increases in mandatory fees?
6. What are colleges doing to promote shorter time-to-degree?
7. Are quality, cost, and price linked?
8. Are colleges utilizing their resources and facilities efficiently?

Student Aid

1. What is the current mix of student financial aid programs?
2. Who are the primary beneficiaries of the state's student financial aid programs?
3. Who pays for and who receives institutional financial aid?
4. What are the trends in student loan burdens per student?
5. What are the trends in student loan default rates?
6. What is the state doing to support a growing number of non-traditional students?

IX. Summary

Missouri's system of higher education can be characterized by size and scope, diversity, institutional autonomy, results, and contributions to the state's workforce development system. Through public policy initiatives of the Coordinating Board for Higher Education and thoughtful participation by the state's public, independent, and private career schools, colleges, and universities, Missouri is becoming nationally recognized for its efforts to ensure access, quality, and efficiency in the state's system of higher education.

The mission of higher education is to provide access to learning opportunities beyond high school, to support research, and to promote public service. In addition, the nonprofit economic structure within which public and independent colleges and universities operate and compete is somewhat different from the economic structure of the private for-profit sector. Consequently, colleges and universities do not behave in ways similar to private companies and industries. While the return on the private and public investment in higher education remains high, the price charged to students and families is increasing at rates which exceed selected indices such as the Higher Education Price Index and Consumer Price Index. Proportionately, the price of higher education as a percent of Missouri per capita disposable income is higher in 1997 than it was in 1989.

While the total amount of money for student financial aid has increased in recent years, much of the aid awarded by institutions is based on merit and ability rather than financial need. In addition, not all need-based financial aid programs are targeted to the poorest students and families from low socio-economic backgrounds. Further, in recent years, the total amount in student loans has increased significantly as well as the number of students incurring financial debt through those student loans. The proportion of funds available for student grants, which do not need to be repaid, is dwarfed by the amount of loan money used by students and parents that do need to be repaid.

The debate between higher education financing strategies that focus on low tuition and low student financial aid compared to high tuition and high student aid continues. Whether states fund the operations of institutions or fund students is a complicated educational and public policy discussion.

The intent of this report, however, was not to answer questions, but to provide background information and data that will inform the discussions and deliberations of the Missouri Commission on the Affordability of Higher Education. It was intended also to raise questions by commission members as they review the issues, explore the facts, and begin to develop recommendations regarding the cost, price, and affordability of Missouri higher education.

APPENDICES

APPENDIX A

MISSION REVIEW AND ENHANCEMENT

APPENDIX B

DEFINITIONS

Definitions

Cost: What institutions spend to provide education and related educational services to students.

Cost per student: The average amount spent annually to provide education and related educational services to each full-time equivalent student.

Current Fund Education and General Expenditures

Current Funds Expenditures and Transfers: are the costs incurred for goods and services used in the conduct of the institutions' operations. They include the acquisition cost of capital assets, such as equipment and library books, to the extent current funds are budgeted for and used by operating departments for such purposes.

Functions of Expenditures

- Instruction: should include expenditures of the colleges, schools, departments, and other instructional divisions of the institution and expenditures for departmental research and public service that are not separately budgeted. Expenditures for both credit and noncredit activities should be included. Expenditures for academic administration where the primary function is administration (e.g., academic deans) should be excluded. The instruction category includes general academic instruction, occupational and vocational instruction, special session instruction, community education, preparatory and adult basic education, and remedial and tutorial instruction conducted by the teaching faculty for the institution's students.

- Research: includes all funds expended for activities specifically organized to produce research outcomes and commissioned by an agency either external to the institution or separately budgeted by an organizational unit within the institution. Nonresearch sponsored programs (e.g., training programs) are not included here.

- Public Service: includes all funds budgeted specifically for public service and expended for activities established primarily to provide noninstructional services beneficial to groups external to the institution. Examples are seminars and projects provided to particular sectors of the community. Also included are expenditures for community services and cooperative extension services.

- Academic Support: includes expenditures for the support services that are an integral part of the institution's primary mission of instruction, research, or public service. This includes expenditures for libraries, museums, galleries, audio/visual services, academic computing support, ancillary support, academic administration, personnel development, and course and curriculum development. Also included are expenditures for veterinary and dental clinics if their primary purpose is to support the institutional program.

- Student Services: are funds expended for admissions, registrar activities, and activities whose primary purpose is to contribute to students' emotional and physical well-being and to their intellectual, cultural, and social development outside the context of the formal instructional program. Examples are career guidance, counseling, financial aid administration, and student health services (except when operated as a self-supporting auxiliary enterprise). Also included is the administrative allowance for Pell Grants.

- Institutional Support: reflects expenditures for the day-to-day operational support of the institution, excluding expenditures for physical plant operations. Included are expenditures for general administrative services, executive direction and planning, legal, and fiscal operations, and public relations/development.

- Operation and Maintenance of Plant: includes all expenditures for operations established to provide service and maintenance related to grounds and facilities used for educational and general purposes. Also included are expenditures for utilities, fire protection, property insurance, and similar items. Not included are expenditures made from the institutional plant funds account.

- Scholarships and Fellowships: are all expenditures given in the form of outright grants and trainee stipends to individuals enrolled in formal course work, either for credit or noncredit. Aid to students in the form of tuition or fee remissions should be included. Excluded are those remissions that are granted because of faculty or staff status. Also not included are College Work Study program expenses.

- Mandatory Transfers: are those that must be made in order to fulfill a binding legal obligation of the institution. Reported are mandatory debt-service provisions relating to academic and administrative buildings, including 1) amounts set aside for debt retirement and interest and 2) required provisions for renewal and replacements to the extent not financed from other sources. Also included is the institutional matching portion for Perkins Loans when the source of funds is current revenue.

- Nonmandatory Transfers: are those transfers from current funds to other fund groups made at the direction of the governing board to serve a variety of objectives, such as additions to loan funds, funds functioning as endowment, general or specific plant additions, voluntary renewals and replacement of additions, voluntary renewals and replacement of plant, and prepayments on debt principal.

- Auxiliary Enterprises: includes those essentially self-supporting operations of the institution that exist to furnish a service to students, faculty, or staff, and that charge a fee that is directly related to, although not necessarily equal to, the cost of the service. Examples are residence halls, food services, student health services, intercollegiate athletics, college unions, college stores, and barber shops.

- Hospitals: includes all expenditures associated with the operation of a hospital, including nursing expenses, other professional services, general services, administrative services, fiscal services, and charges for physical plant operations. If the institution accounts for depreciation under FASB Standard No. 93, such depreciation is accounted for here.

- Independent Operations: includes all funds expended for operations that are independent of or unrelated to the primary missions of the institution (i.e., instruction, research, public service), although they may contribute indirectly to the enhancement of these programs. This category is generally limited to expenditures of major federally funded research and development centers. This category does not include the expenditures of operations owned and managed as investments of the institution's endowment funds.

Current Education and General Fund Revenues

- Tuition and Fees: are tuition and fees (including student activity fees) assessed against students for education purposes. Includes tuition and fee remissions or exemptions even though there is no intention of collecting from the student. Includes those tuition's and fees that are remitted to the State as an offset to the State appropriation. Does not include charges for room, board, and other services rendered by auxiliary enterprises.

- Government Appropriations: includes all amounts received by the institution through acts of a legislative body, except grants and contracts. These funds are for meeting current operating expenses, not for specific projects or programs. An example is Federal land-grant appropriations. Pell Grants are not reported here as they are grants, not appropriations.

- Contracts (Government Grants and Contracts): includes revenues from governmental agencies that are for specific research projects or other types of programs. Examples are research projects, training programs, and similar activities for which amounts are received or expenditures are reimbursable under the terms of a government grant or contract.

- Endowments/Gifts (Private Gifts, Grants, and Contracts): includes revenues from private donors for which no legal consideration is involved and private contracts for specific goods and services provided to the funder as stipulation for receipt of the funds. Includes only those gifts, grants, and contracts that are directly related to instruction, research, public service, or other institutional purposes. Monies received as a result of gifts, grants, or contracts from a foreign government are also included.

- Endowment Income: includes the unrestricted income of endowment and similar funds, restricted income of endowment and similar funds to the extent expended for current operating purposes, and income from funds held in trust by others under irrevocable trusts. Does not include capital gains or losses unless the institution has

adopted a spending formula by which it expends not only the yield but also a prudent portion of the appreciation of the principal.

- Sales and Service (Sales and Service of Educational Activities): includes revenues derived from the sales of goods or services that are incidental to the conduct of instruction, research, or public service. Examples include film rentals, scientific and literary publications, testing services, university presses, and dairy products.

- Other Sources: includes all revenues not covered elsewhere. Examples are interest income and gains (net of losses) from investments of unrestricted current funds, miscellaneous rentals and sales, expired term endowments, and terminated annuity or life income agreements, if not material. Includes revenues resulting from the sales and services of internal service departments to persons or agencies external to the institution (e.g., the sale of computer time).

General Subsidy: the difference between the cost to the institution of providing an education ("cost per student") and the tuition and fees charged to students ("sticker price"). Students who attend institutions of higher education, regardless of whether they attend public or independent colleges or universities, or whether they receive financial aid, typically receive a general subsidy. This general subsidy does not include subsidies some students receive from scholarships and other types of financial aid.

Price: what students and their families are charged and what they pay.

- Sticker price: the tuition and fees that institutions charge.

- Total price of attendance: the tuition and fees that institutions charge students as well as other expenses related to obtaining an education. These expenses include housing (room and board if the student lives on campus, or rent or related housing costs if the student does not live on campus), books, transportation, etc. (This term typically referred to by other higher education analysts as the "cost of attendance").

- Net price: what students pay after financial aid is subtracted from the total price of attendance. Financial aid comes in different forms: grants and scholarships or "gifts" to the student that do not have to be repaid; loans are borrowed money that must be paid back, typically after the student leaves school; and work study entails working to receive financial assistance. Because of the very different nature of grants versus loans or work-study, the National Commission on the Cost of Higher Education used two different concepts of net price.

    1. The first measure subtracts only grants from the total price of attendance. This concept provides a measure of **affordability**, or the amount of money a student actually pays to attend.

    2. The second measure subtracts **all financial aid awarded** – grants, loans, and work study – from the total price of attendance, to measure the

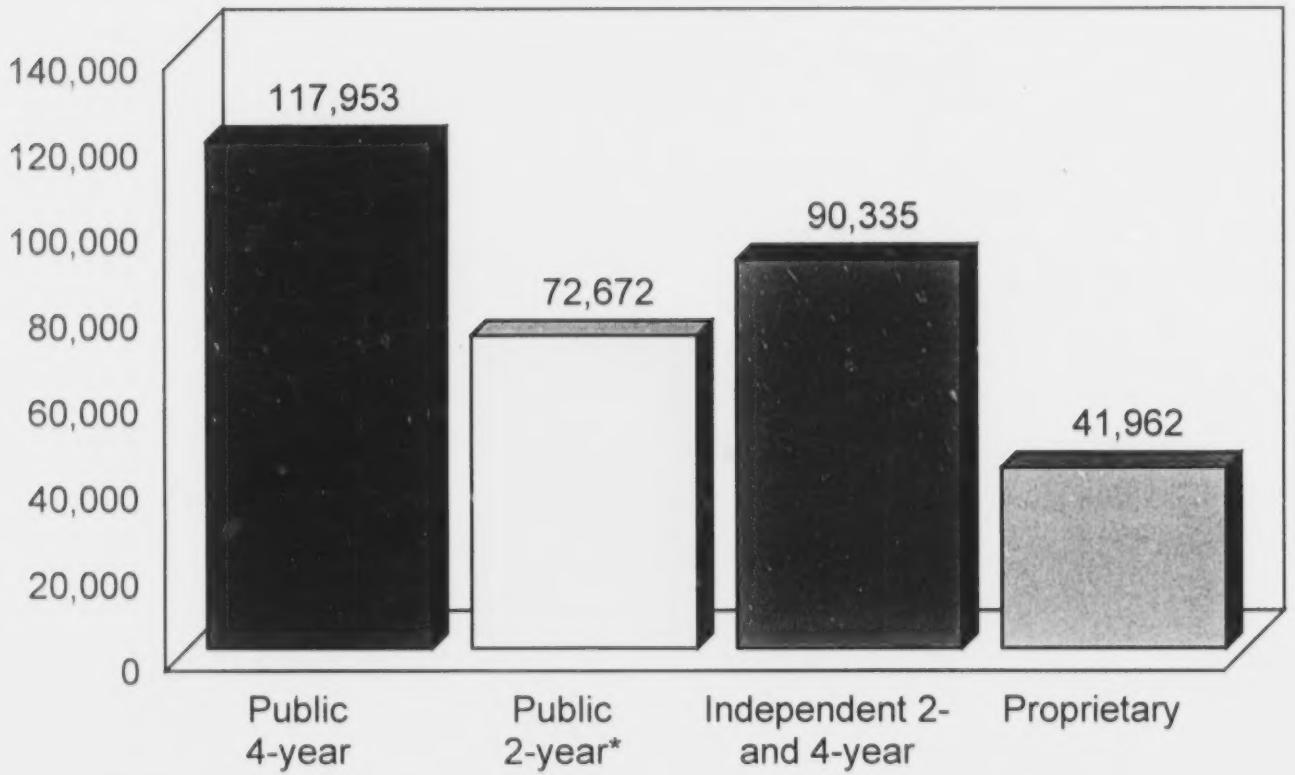
amount of money a student needs in order to enter the college or university. This concept provide a measure of **access**, because even though loans must be repaid, they allow a student to attend college, just like car loans allow many to buy a car who otherwise may not be able to afford one.

APPENDIX C

CHARTS AND TABLES

Chart 1

Total Headcount Enrollment, Missouri Public, Independent, and Proprietary Institutions, Fall 1997

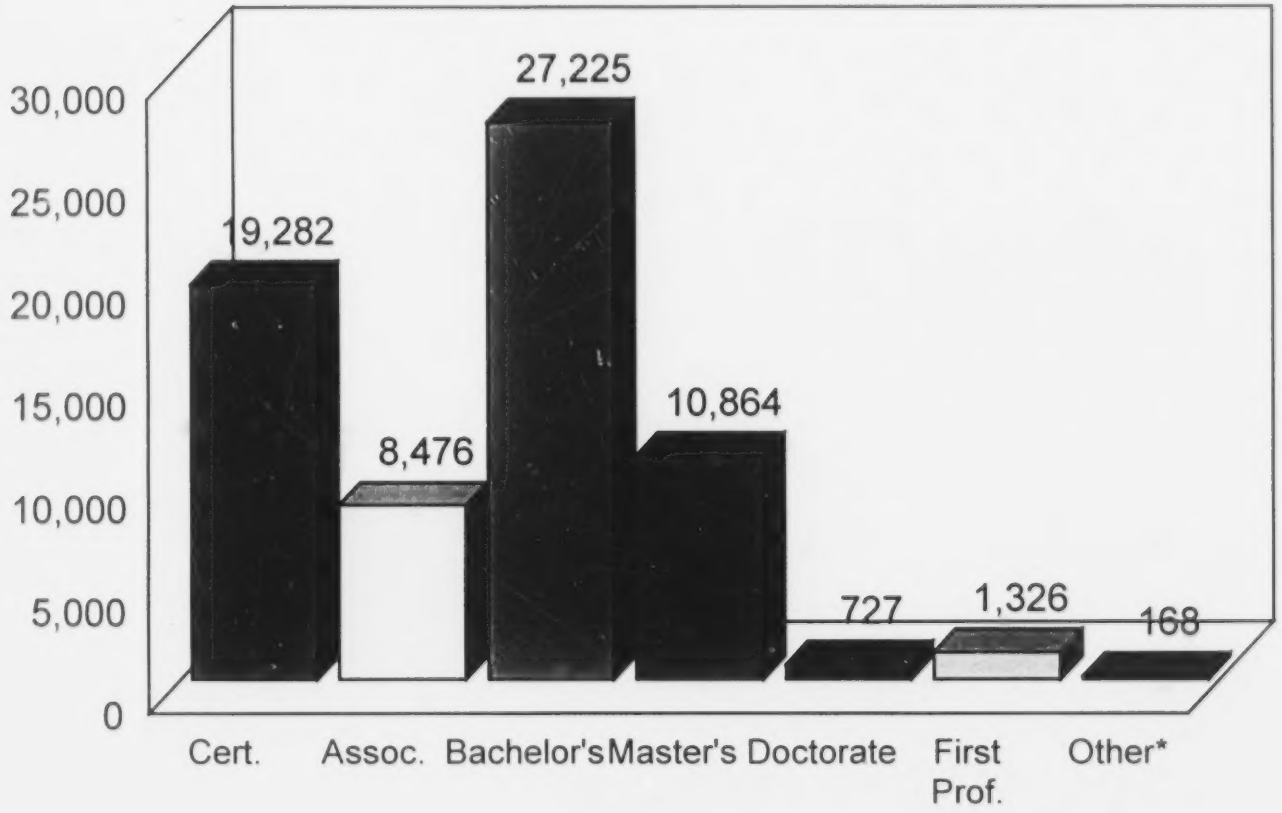


*Includes Linn State Technical College
Source: DHE-02

Total Headcount - 322,922

Chart 2

Total Degrees Conferred, Missouri Public, Independent, and Proprietary Institutions, FY 1997



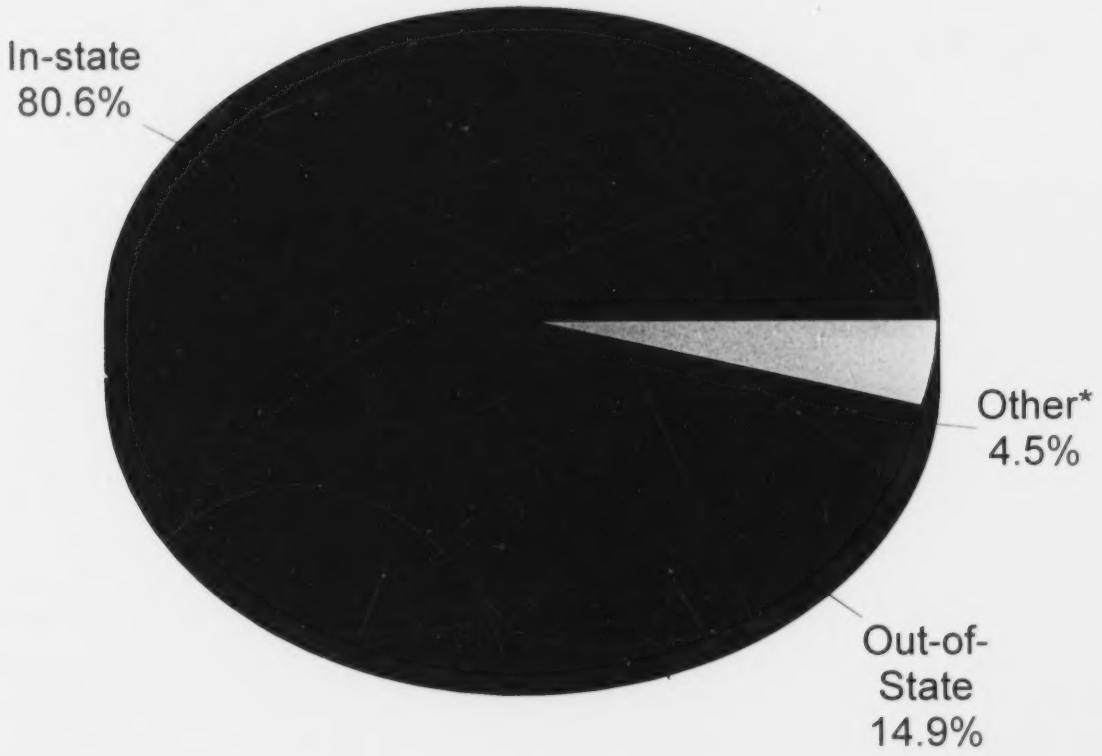
*Postbaccalaureate and postmaster's

Source: IPEDS Completions

Total degrees - 68,068

Chart 3

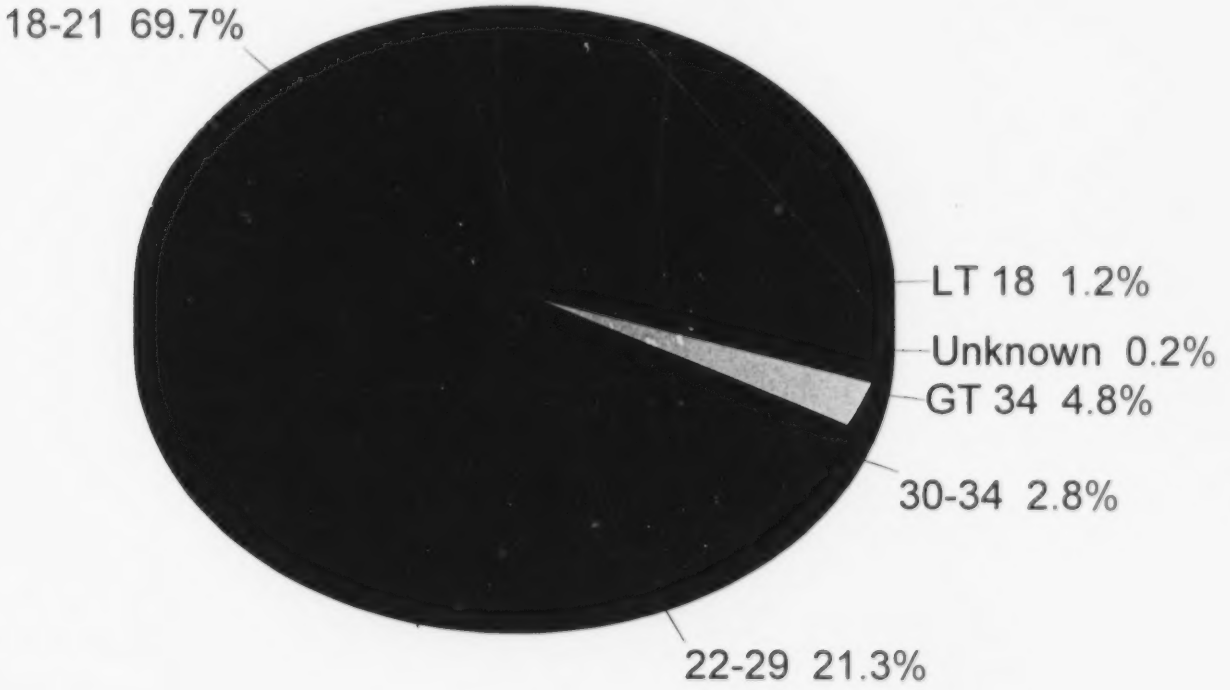
Percent Distribution of In- and Out-of-State Undergraduate Enrollment, Missouri Public and Independent Institutions, Fall 1997



*U.S. Territories, foreign students, and unknown
Source: DHE07-1

Chart 4

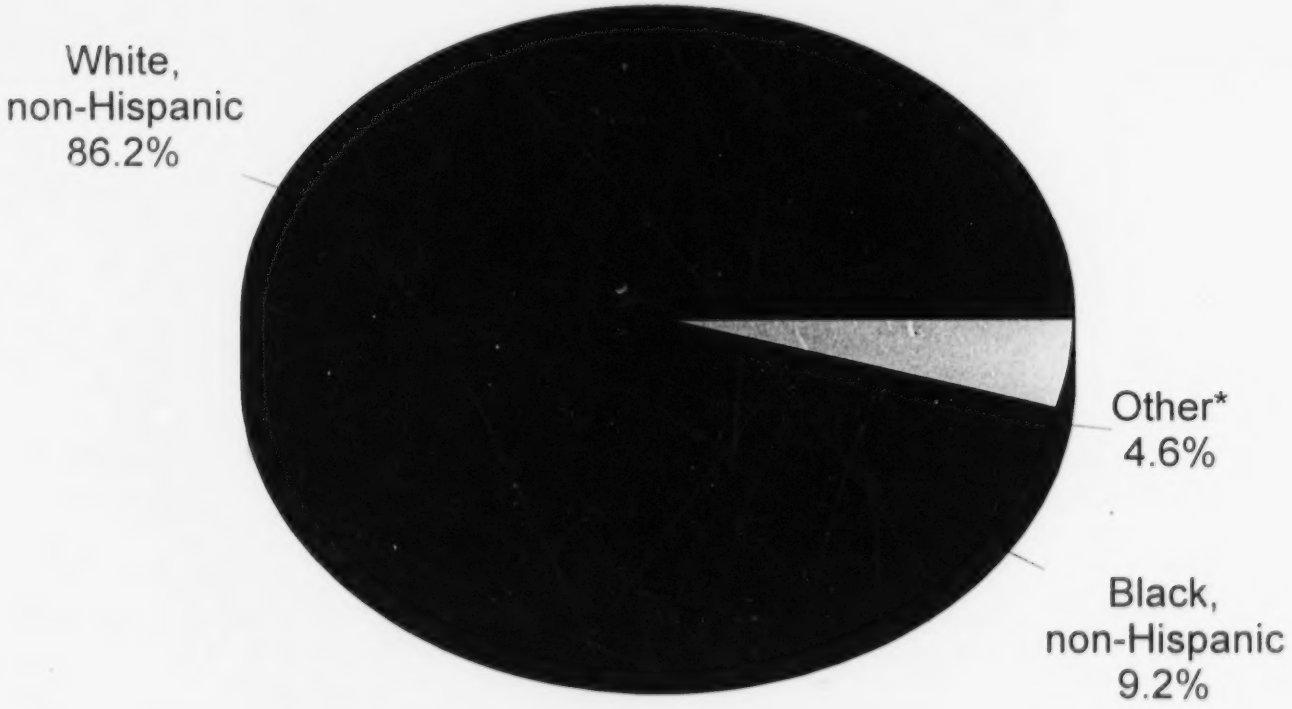
Age Distribution of Full-time Undergraduate Students, Missouri Public and Independent Institutions, Fall 1997



Source: IPEDS Fall Enrollment

Chart 5

Total Undergraduate Headcount Enrollment by Ethnicity, Missouri Public and Independent Institutions, Fall 1997

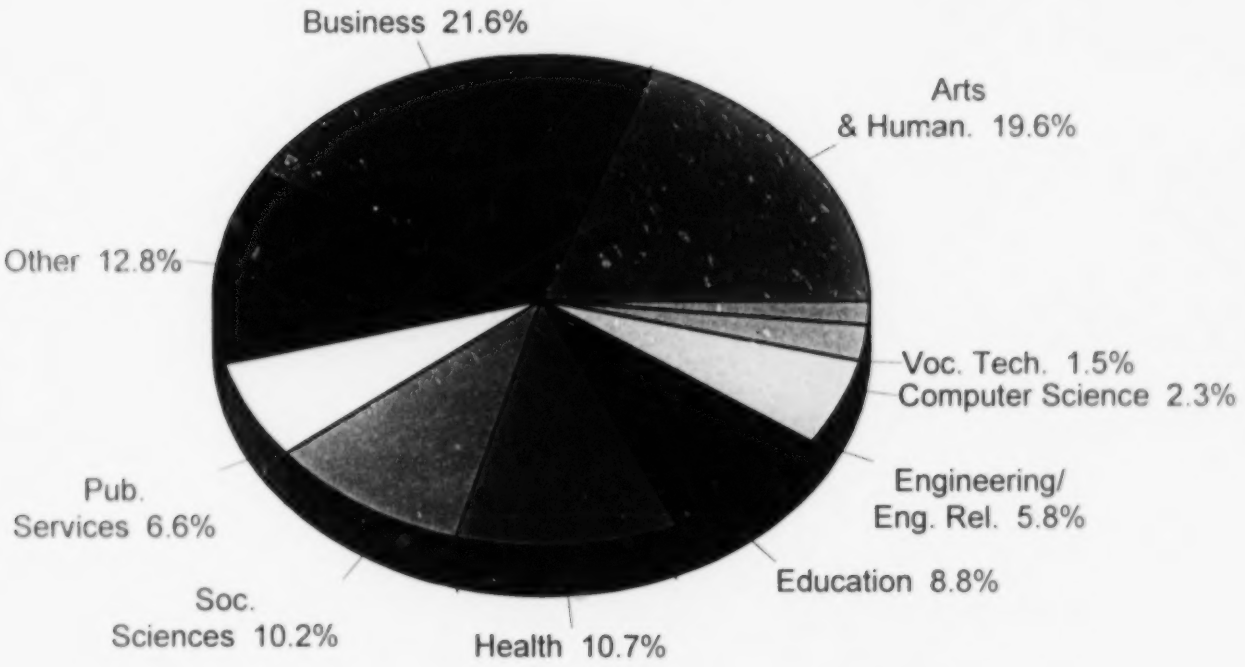


*American Indian, Asian, Hispanic
Source: IPEDS Fall Enrollment

Total undergraduate headcount: 225,651 (does not include unknowns or nonresident aliens)

Chart 6

Total Undergraduate Degrees Conferred, by Discipline, Missouri Public and Independent Two- and Four-year Institutions, FY 1997



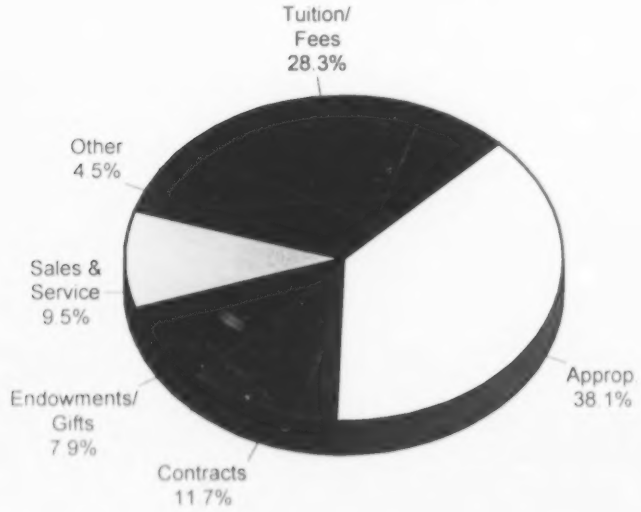
Source: IPEDS Completions

Total undergraduate degrees: 36,627

Chart 3

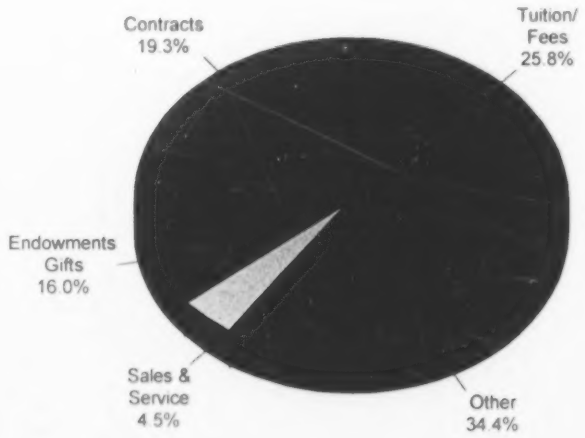
Current Fund Education and General Revenues, FY 1997
Missouri Public and Independent Universities

University of Missouri



Total Current Fund E & G Revenues - $973,100,239

Independent Universities



Total Current Fund E & G Revenues - $1,193,973,797

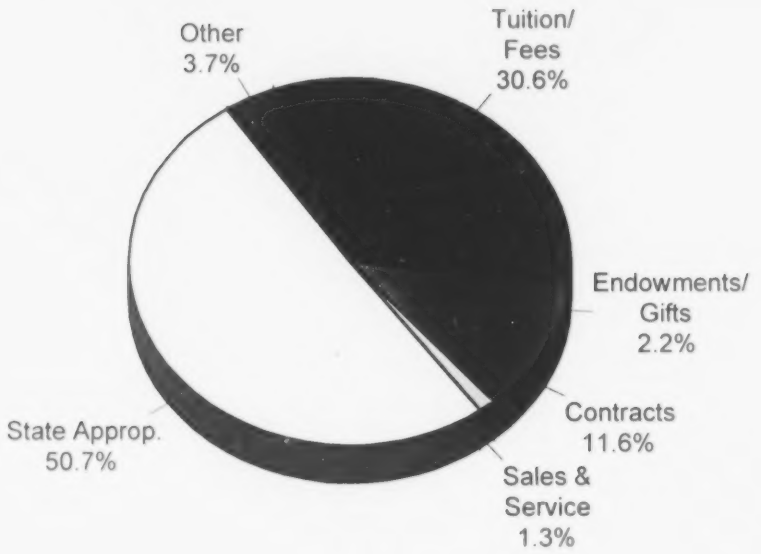
Source: IPEDS Finance

63

Chart 4

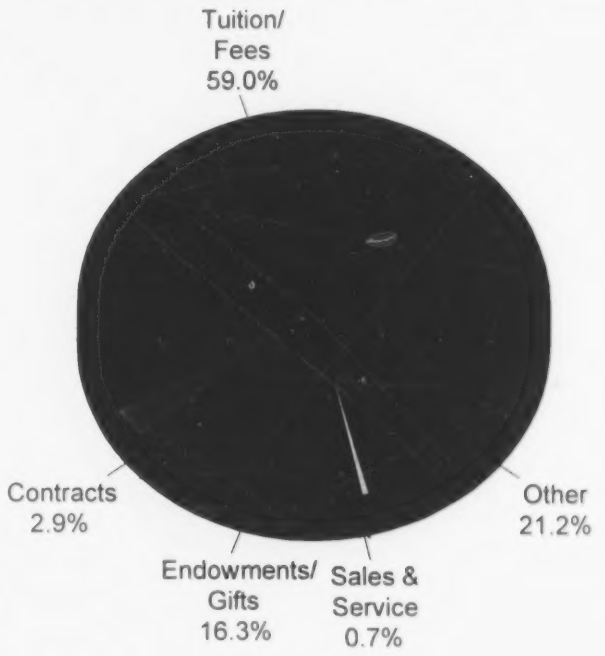
Current Fund Education and General Revenues, FY 1997
Missouri Public and Independent Colleges and Universities

Public Four-year Colleges and Universities



Total Current Fund E & G Revenues - $529,109,548

Independent Four-year Colleges and Universities

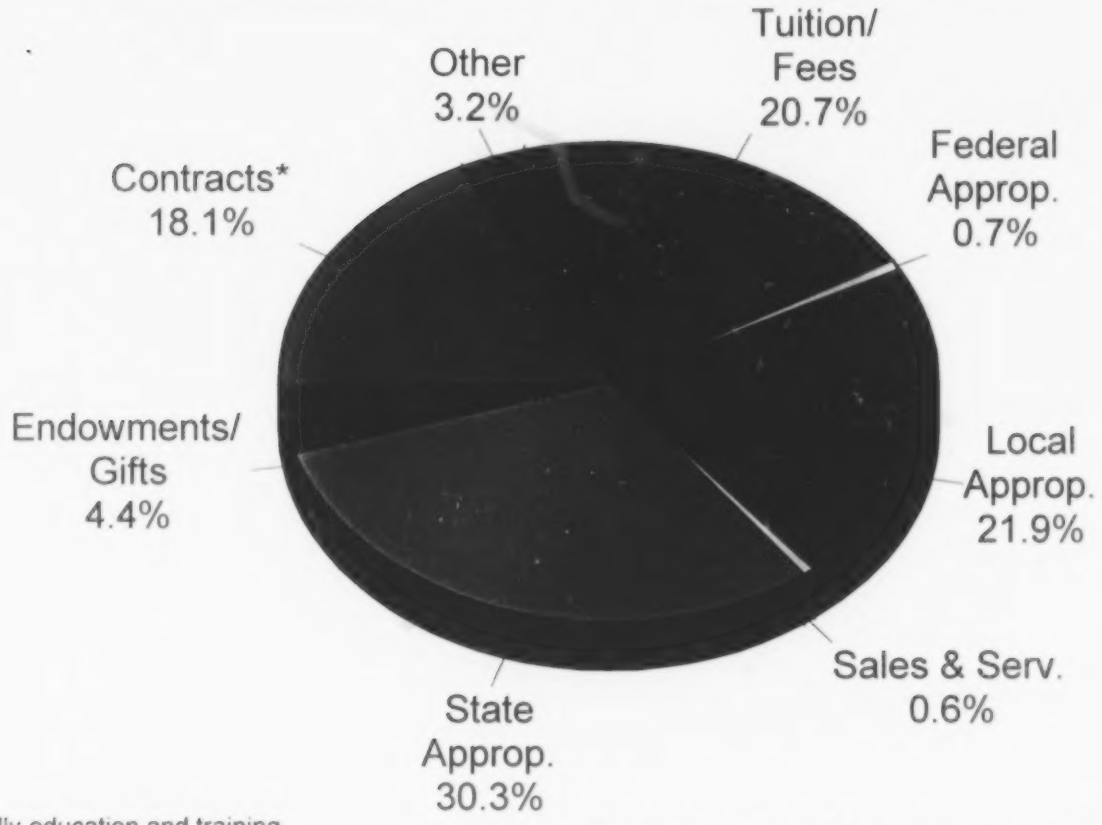


Total Current Fund E & G Revenues - $347,079,364

Source: IPEDS Finance

Chart 5

Current Fund Education and General Revenues, FY 1997
Missouri Public Two-year Institutions

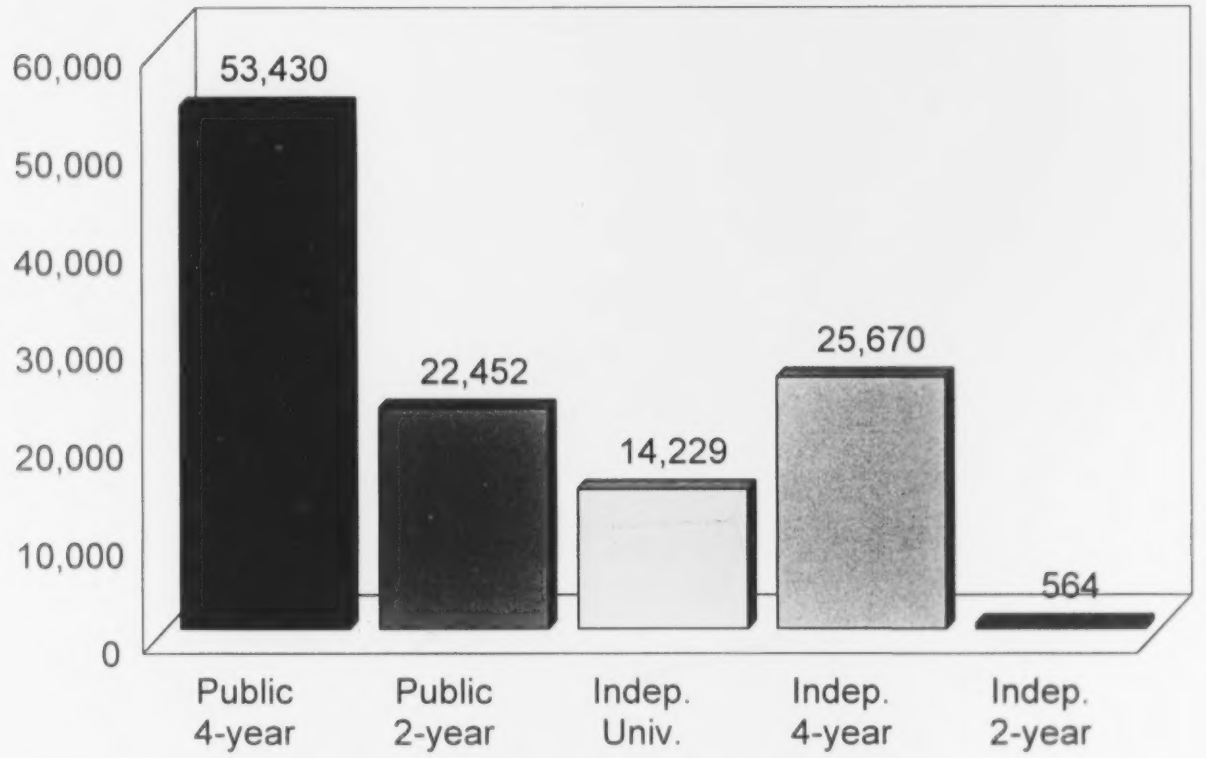


*Generally education and training contracts with state government
Source: IPEDS Finance

Total Current Fund E & G Revenues - $351,282,136 (includes Linn State Tech.)

Chart 12

Unduplicated Count of Students Receiving Need-based Financial Aid from Missouri Public and Independent Institutions, FY 1997

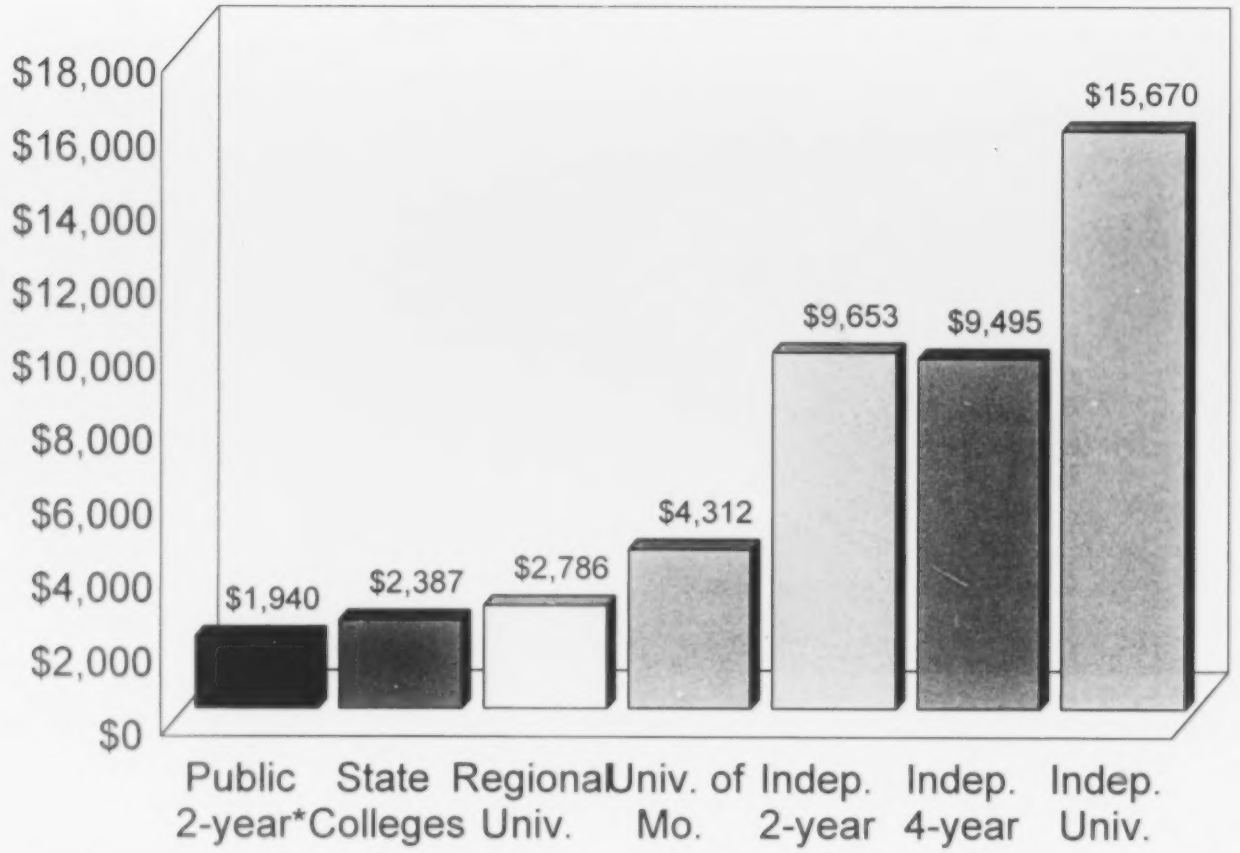


Source: DHE14-1

Total Receiving Need-based Aid - 116,345

Chart 7

Average Tuition and Fees for a Typical Full-time Undergraduate Student Enrolled in Missouri Public and Independent Institutions, Academic Year 1997-1998



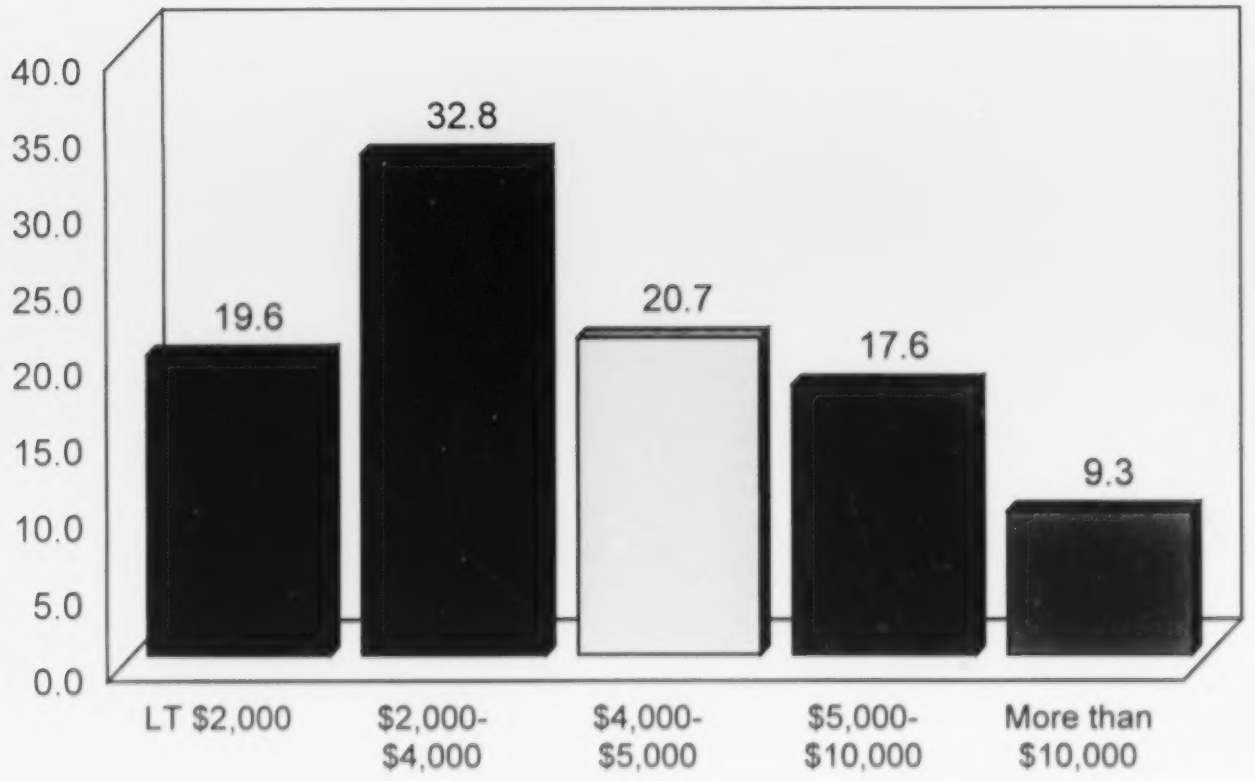
*Includes Linn State Technical College

Statewide average tuition - $6,071

Source: Comprehensive Fee Schedules, IPEDS Inst. Characteristics

Chart 6

What Full-time Undergraduates Pay to Attend Missouri Public and Independent Institutions, Fall 1997



Source: Comprehensive Fee Schedule, IPEDS Inst. Characteristics, DHE-02

73

Chart 14

Cumulative Growth in Average Undergraduate Tuition and Fees and State Appropriations, FY 1974 - FY 1999 Missouri Public Four-year Colleges and Universities

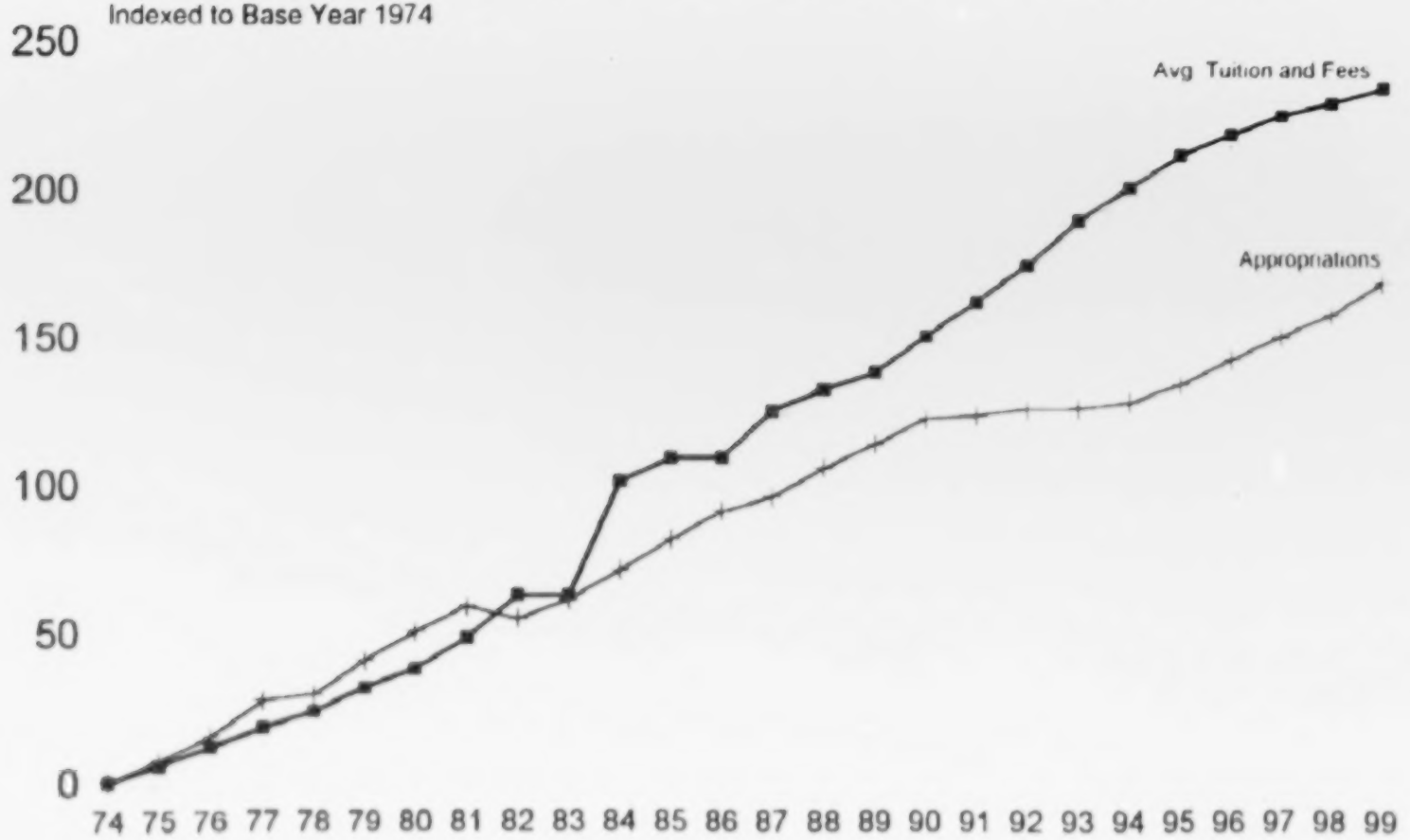


Chart 15

Cumulative Growth in Tuition and Fees and Appropriations, FY 1980 - FY 1999

Missouri Public Two-year Institutions

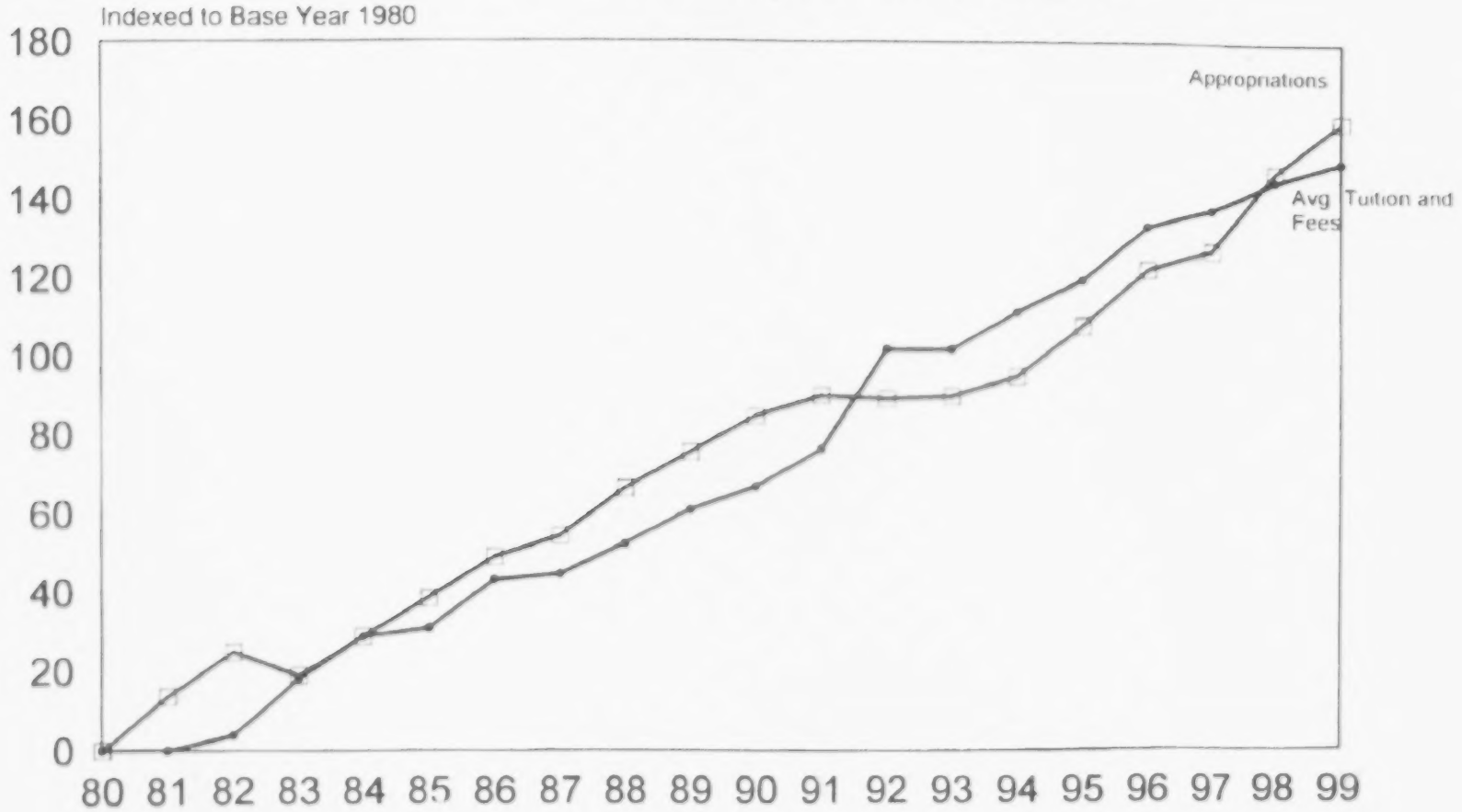


Table 1

Annual Tuition and Fees at Missouri's Public and Independent Colleges and Universities Per Full-time Equivalent Student by Sector, 1989-1998

	Public Colleges: Harris-Stowe, Missouri Southern, and Missouri Western	Public Regionals: Central, Northwest, Southeast, Southwest, Lincoln, and Truman	University of Missouri System	Public Two-year	Independent Universities	Independent Colleges
1989	$896	$1,346	$1,685	$527	$8,501	$5,792
1990	$1,119	$1,333	$1,951	$572	$9,257	$6,060
1991	$1,214	$1,528	$2,173	$606	$10,043	$6,538
1992	$1,361	$1,710	$2,453	$664	$10,857	$6,795
1993	$1,572	$1,957	$2,831	$833	$11,599	$7,508
1994	$1,788	$2,146	$3,152	$833	$12,385	$7,488
1995	$1,941	$2,394	$3,475	$911	$12,888	$8,080
1996	$2,039	$2,539	$3,807	$985	$13,934	$8,667
1997	$2,167	$2,636	$4,150	$1,118	$14,797	$9,091
1998	$2,269	$2,768	$4,312	$1,165	$16,660	$9,866

Chart 16

Cumulative Growth in Tuition and Fees, the Higher Education Price Index, and the Consumer Price Index, 1989-1998

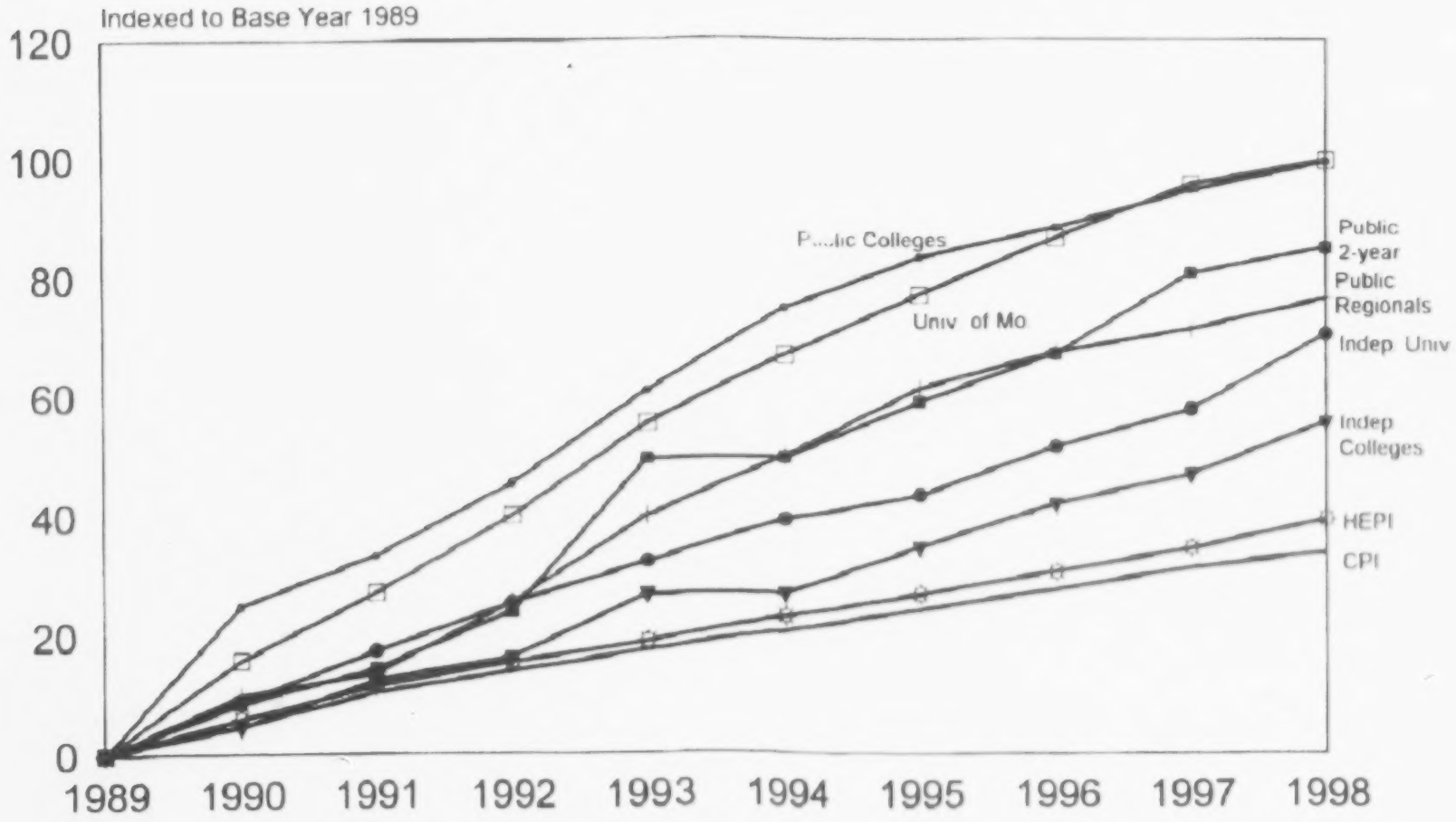


Chart 17

Tuition and Fees as a Percent of Missouri Per Capita Disposable Income by Sector, 1989-1997

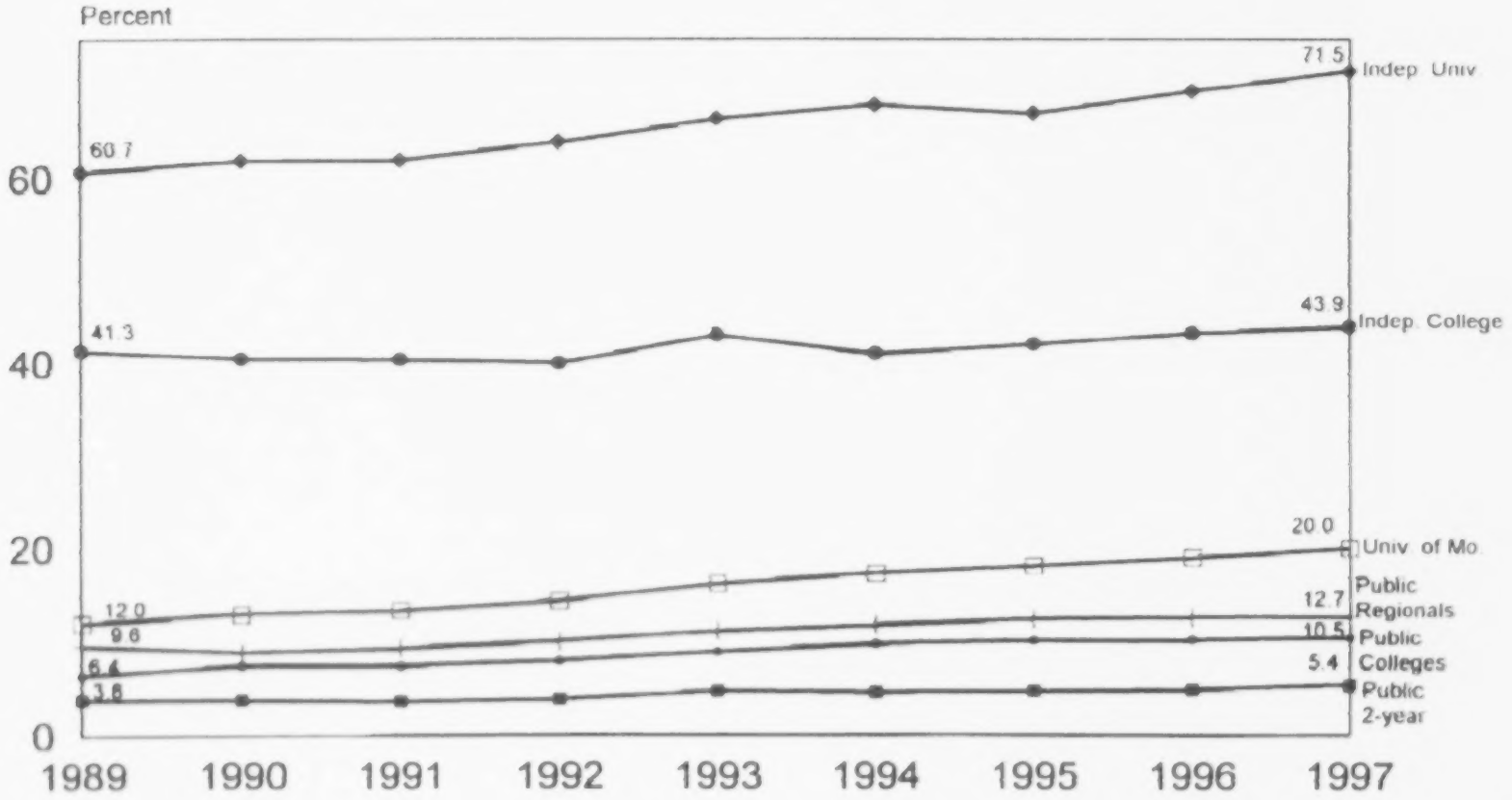


Table 2

Tuition and Fees as a Percent of Per Capita Disposable Income, 1989-1998

Tuition and Fees

	Public Colleges: Harris-Stowe, Missouri Southern, and Missouri Western	Public Regionals: Central, Northwest, Southeast, Southwest, Lincoln, and Truman	University of Missouri System	Public Two-year	Independent Universities	Independent Colleges
1989	$896	$1,346	$1,685	$527	$8,501	$5,792
1990	$1,119	$1,333	$1,951	$572	$9,257	$6,060
1991	$1,214	$1,528	$2,173	$606	$10,043	$6,538
1992	$1,361	$1,710	$2,453	$664	$10,857	$6,795
1993	$1,572	$1,957	$2,831	$833	$11,599	$7,508
1994	$1,788	$2,146	$3,152	$833	$12,385	$7,488
1995	$1,941	$2,394	$3,475	$911	$12,888	$8,080
1996	$2,039	$2,539	$3,807	$985	$13,934	$8,667
1997	$2,167	$2,636	$4,150	$1,118	$14,797	$9,091
1998	$2,269	$2,768	$4,312	$1,165	$16,660	$9,866

Tuition and Fees as a Percent of Per Capita Disposable Income

1989	6.4%	9.6%	12.0%	3.8%	60.7%	41.3%
1990	7.5%	8.9%	13.0%	3.8%	61.9%	40.5%
1991	7.5%	9.4%	13.4%	3.7%	62.0%	40.4%
1992	8.0%	10.1%	14.4%	3.9%	63.9%	40.0%
1993	9.0%	11.2%	16.2%	4.8%	66.4%	43.0%
1994	9.8%	11.8%	17.3%	4.6%	67.9%	41.0%
1995	10.1%	12.4%	18.1%	4.7%	67.0%	42.0%
1996	10.2%	12.6%	19.0%	4.9%	69.4%	43.2%
1997	10.5%	12.7%	20.0%	5.4%	71.5%	43.9%

Chart 18

Higher Education's Percent of State General Revenue and Lottery Appropriations, 1974-1999

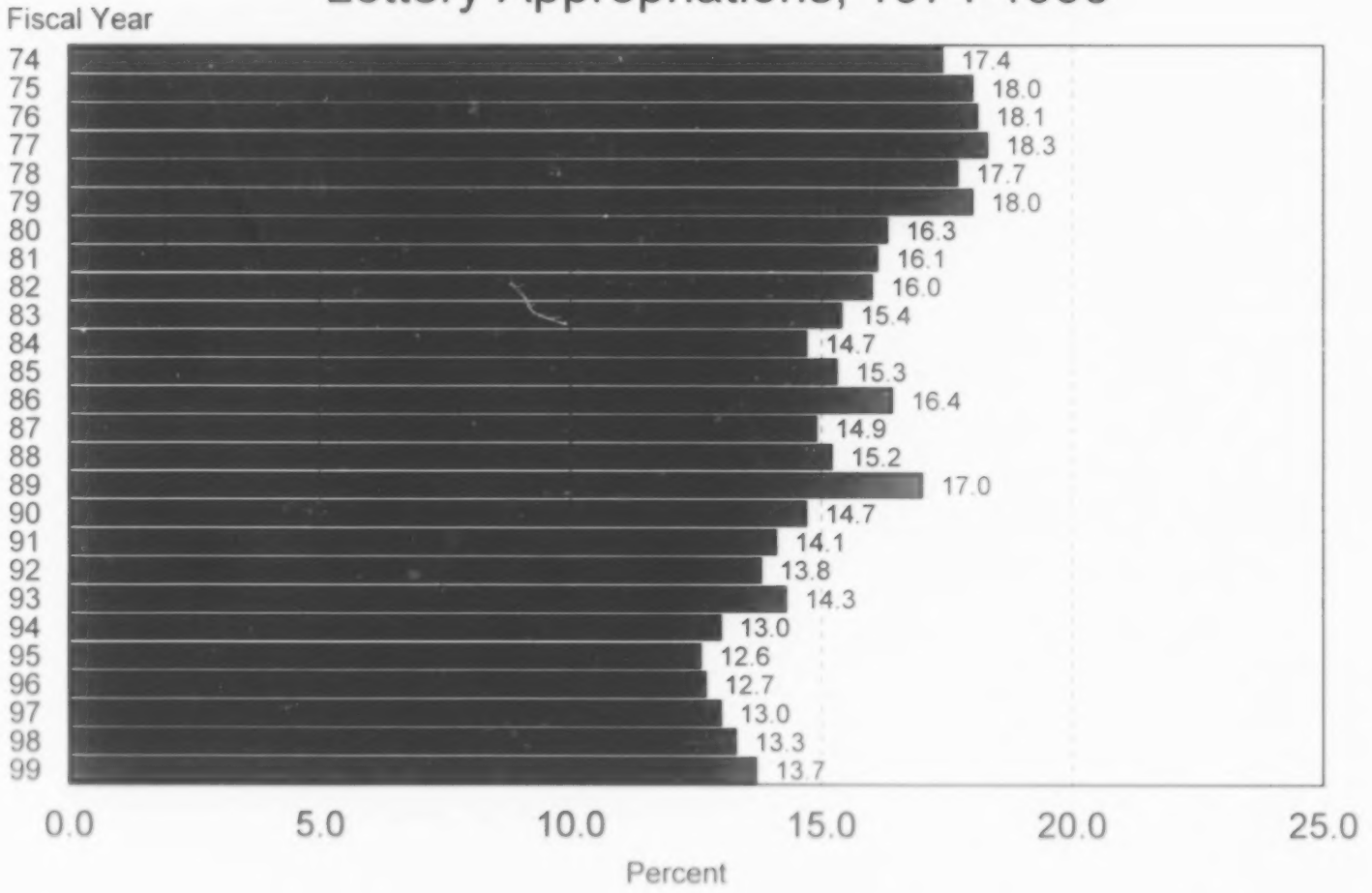


Chart 19

Federal Student Financial Aid by Award Type and Institutional Sector, FY 1991 and FY 1996

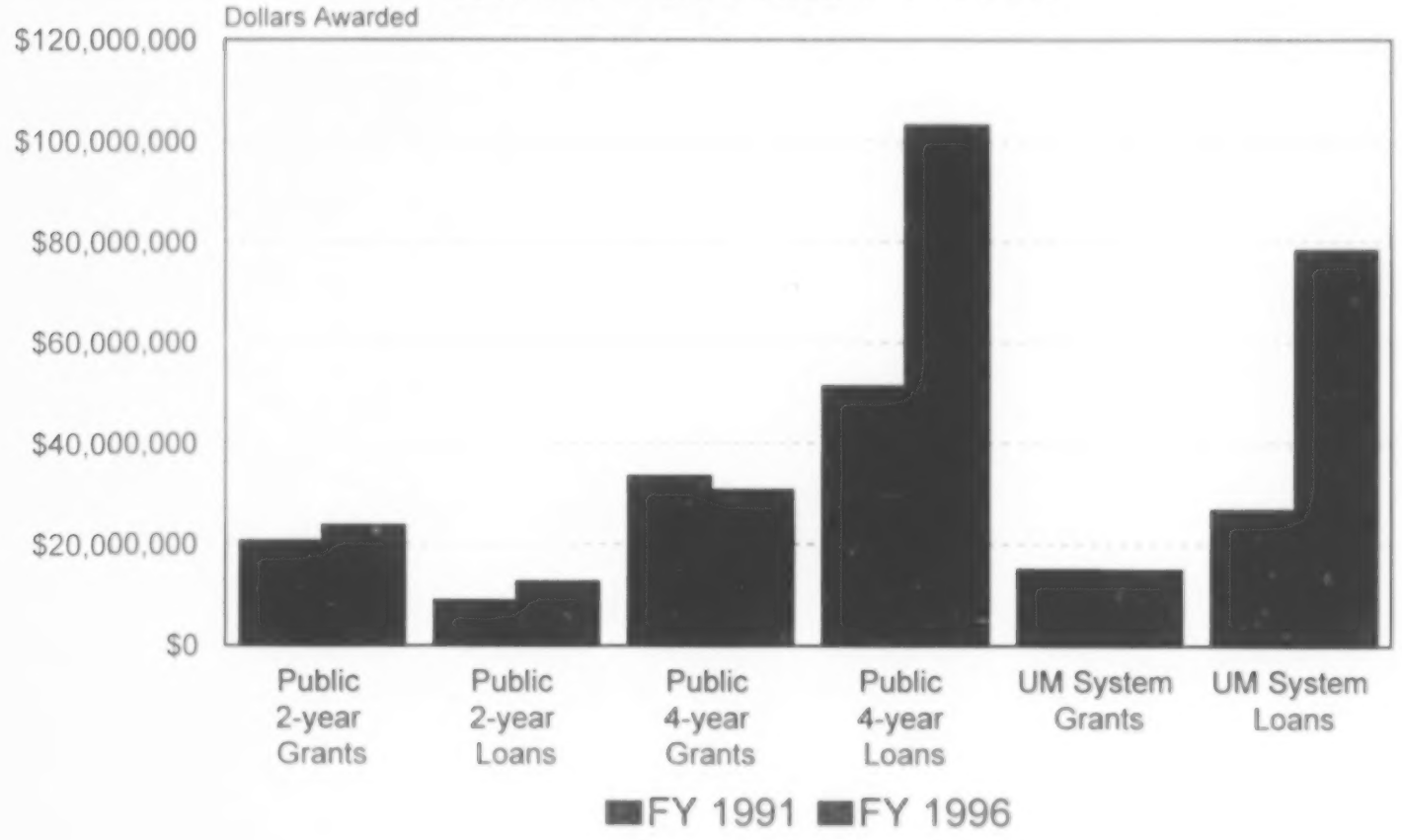


Chart 20

Federal Student Financial Aid by Award Type and Institutional Sector, FY 1991 and FY 1996

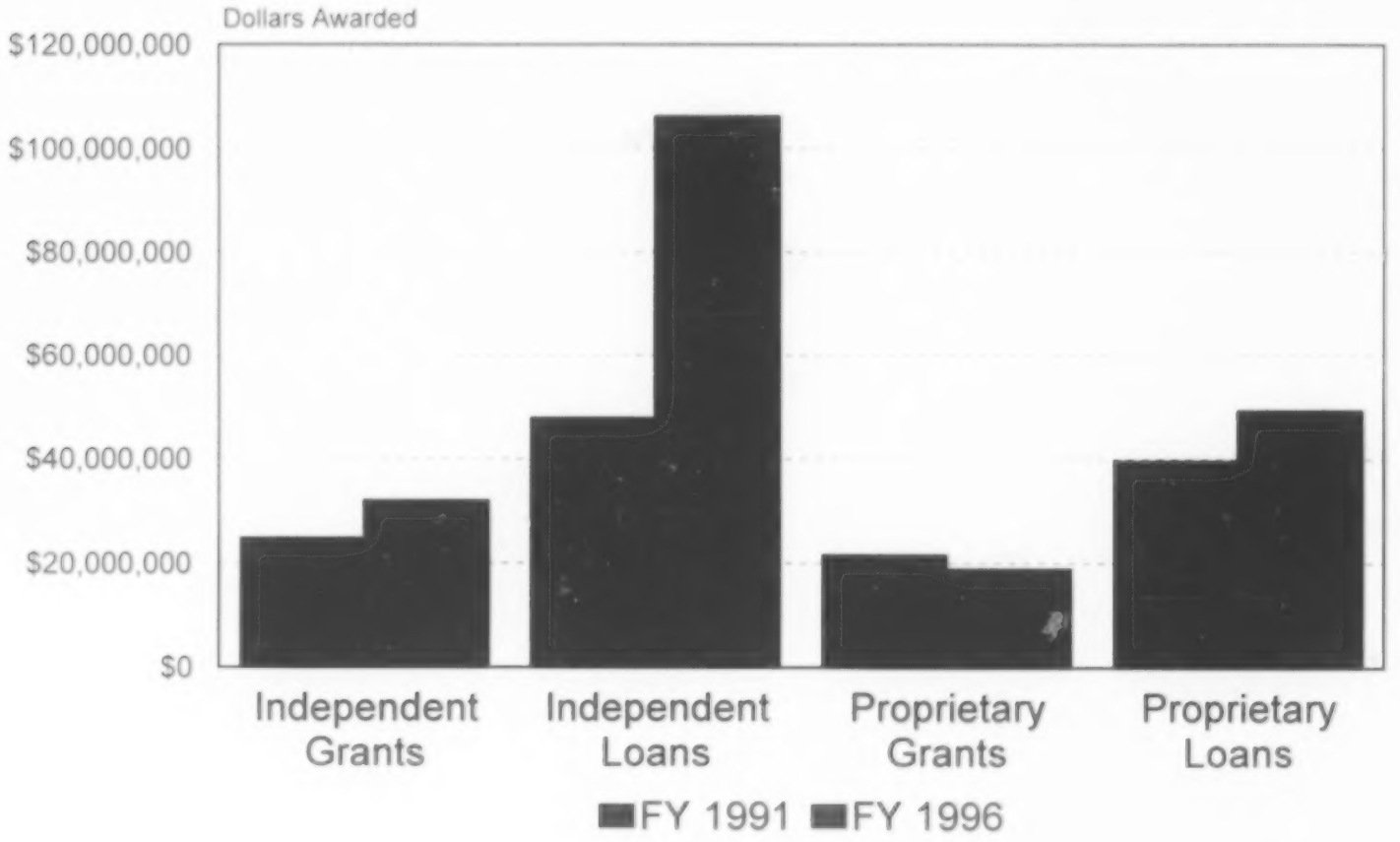
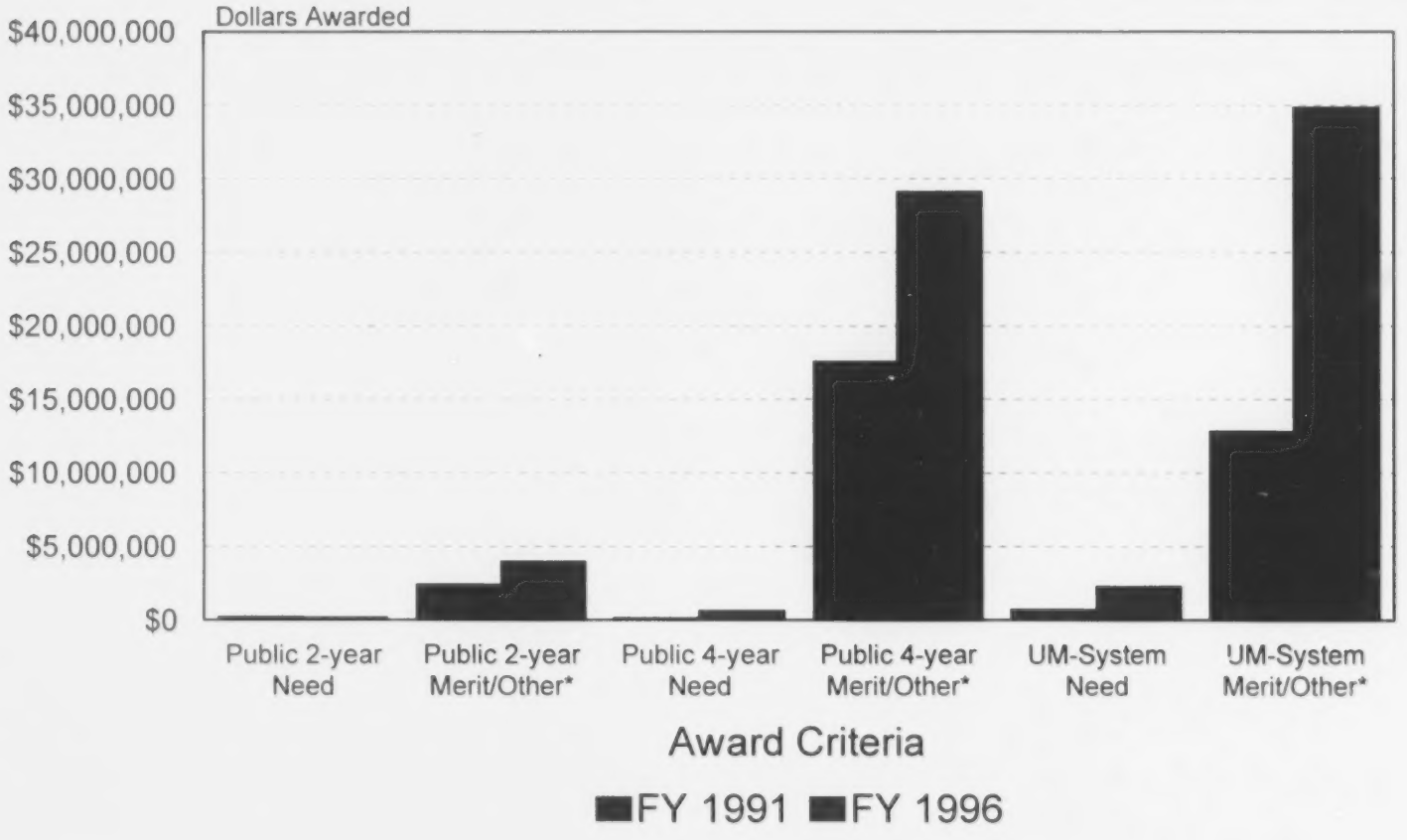


Chart 21

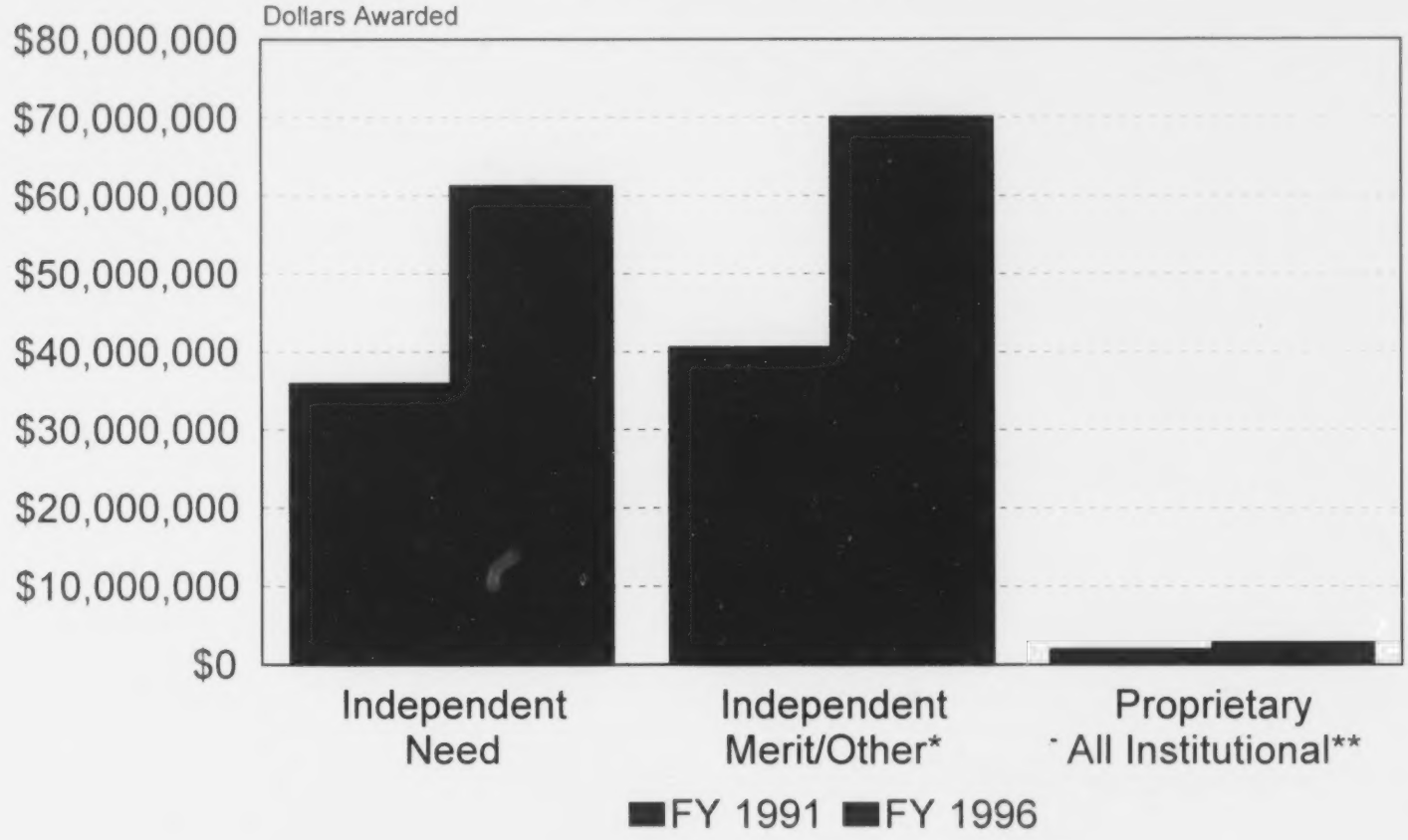
Institutional Student Financial Aid by Award Criteria and Institutional Sector, FY 1991 and FY 1996



*Merit/Other includes academic scholarships, athletic scholarships, fee waivers, other non-need based awards.

Chart 22

Institutional Student Financial Aid by Award Criteria and Institutional Sector, FY 1991 and FY 1996

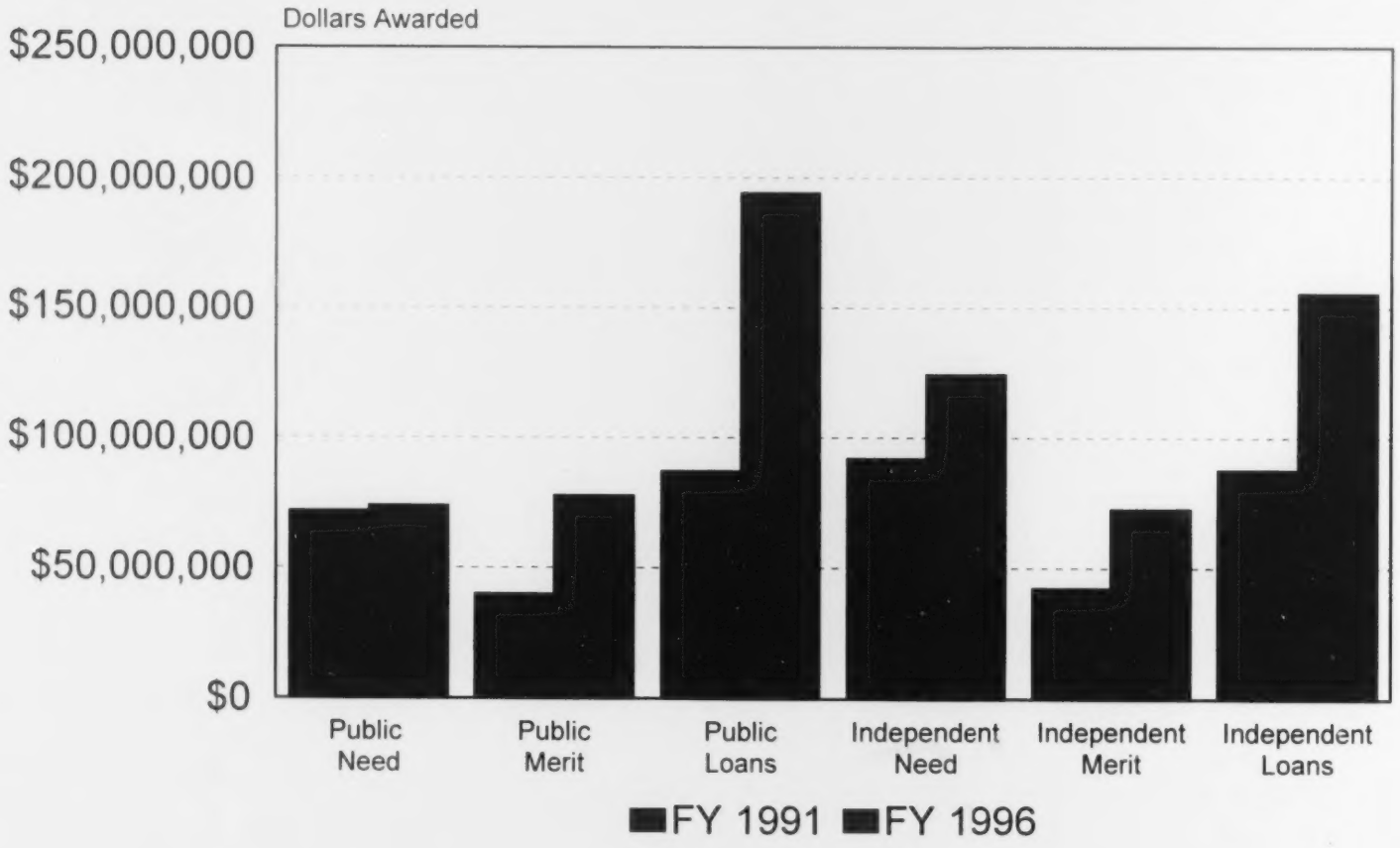


*Merit/Other includes academic scholarships, athletic scholarships, fee waivers, other non-need based awards.
**Proprietary institutions do not report institutional aid according to award criteria.

93

Chart 13

Distribution of Total Student Financial Aid by Award Type



APPENDIX D

RESULTS OF MISSOURI HIGHER EDUCATION

102

Educated Missourians

Access

- Nearly 1.5 million Missourians aged 25 and over (43 percent) have completed some college courses – an increase from 41 percent in March 1992. Almost 33 percent of Missouri residents aged 21 - 64 in 1998 have 14 or more years of education, up from 31.4 percent in 1997, 31.8 percent in 1996, and 29 percent in 1995.

- Nearly 1 million Missourians aged 25 and over have an associate or higher degree – an increase of more than 220,000 (29 percent) since March 1992.

- More than 325,000 students are pursuing higher education in Missouri; 190,000 students at the state's public colleges and universities; another 90,000 at Missouri's independent institutions, and nearly 45,000 at private career schools in Missouri.

- Postsecondary technical education is now accessible to citizens in 82 percent of the state's total square miles.

- As of 1997, nearly one-third more minorities have graduated from the state's public and independent colleges and universities than in 1992.

- One out of six 1996-97 baccalaureate degree recipients from Missouri's public four-year institutions took 12 or more credit hours at a Missouri public community college.

- Three out of four community college graduates find jobs in their fields of study; the balance go on to further study.

- Over the last five years, the MOSTARS federal loan cohort default rate has continued to decline. During FY 1998, student assistance programs administered by MOSTARS provided approximately $310 million to 95,000 eligible students.

- MOSTARS receives approximately 600 phone calls from parents, students, schools, and lenders weekly through the nationwide toll-free number. Brochures, newsletters, training materials, and manuals are published by MOSTARS and distributed annually to students, parents, postsecondary institutions, lenders, and high schools.

- Eighty percent of recent Missouri public four-year college and university graduates are earning $25,000 or more per year; 34 percent of recent Missouri community college graduates are earning $25,000 or more.

- More than 70 percent of all Missouri graduates postsecondary technical education certificate, diploma, and degree programs are employed in fields highly related to their field of study.

- More than 50 percent of Missouri college students working toward the completion of a baccalaureate degree now complete their degree requirements within six years compared to some 40 percent a few years ago.

Recent External Recognition of Missouri Colleges and Universities

Quality

- Two students, one from the University of Missouri-Columbia and the other from Saint Louis University, were named 1999 Rhodes scholars.

- Northwest Missouri State University won the Missouri Quality Award in 1997. The University of Missouri-Rolla won the award in 1995.

- Central Methodist College, Park College, Saint Louis University, Southwest Missouri State University, and William Jewell College were named to the 1997-98 John Templeton Foundation Honor Roll for Character-Building Colleges.

- University of Missouri faculty obtained 36 percent more in external research funds in FY 1997 than in FY 1992, an increase of nearly $20 million.

- Nearly 60 percent of Missouri public college alumni would recommend their alma mater to others without reservation.

- More than 80 percent of Missouri's public college alumni rate their alma mater as good to excellent.

- The University of Missouri-Columbia received the 1997 TIAA/CREF Theodore M. Hesburgh Award for Faculty Development to Enhance Undergraduate Teaching and Learning.

- More than 8 out of 10 freshmen enrolled in Missouri public four-year colleges took the CBHE-recommended core curriculum courses in high school – increasing from less than 50 percent just a few years ago.

- Nearly 75 percent of the Advanced Placement exams written by Missouri students were scored at a grade of 3 or above - the highest percentage of all 50 states.

- Drury College, Rockhurst College, Truman State University, the University of Missouri-Columbia, Washington University, Westminster College, and William Jewell College were named *Money* magazine's 1998 Best College Buys.

- College of the Ozarks, Drury College, Truman State University, and Washington University were named *U.S. News and World Report* 1998 Top 20 Best Colleges and Universities in the Midwest Region for quality and low cost.

- Mineral Area College received the 1997 Governor's Award for Special Achievement and Excellence (Leadership in Workforce Development).

More Collaboration Than Ever Between Institutions

Efficiency

- Almost 50 public and independent college and university academic libraries are collaborating to make their collective 14 million volume library holdings available to students and faculty at each institution through MOBIUS.

- Northwest Missouri Educational Consortium includes Northwest Missouri State University, University of Missouri system (including Extension), Missouri Western State College, North Central Missouri College, Grand River Technical School, North Central Area Vocational-Technical School, Northwest Missouri Area Technical School, Brookfield Area Career Center, and three small business development centers located in Maryville, St.. Joseph, and Chillicothe.

- Southeast Missouri Educational Consortium includes Southeast Missouri State University, Lincoln University, Mineral Area College, Three Rivers Community College, and the University of Missouri system

- Regional Technical Education Council's (RTEC) composed of more than 400 members representing local business, education, and community leaders are advising the state's public two-year community colleges, area vocational technical schools, regional baccalaureate and master's degree-granting colleges and universities and other regional providers of postsecondary education and training as the institutions work in partnership to deliver the type of postsecondary education needed in the locations identified by the RTECs

- Institutions are collaborating to provide access to graduate degree programs, such as the University of Missouri Cooperative Doctorate of Education at the state's public four-year colleges and universities. The University of Missouri-Kansas City is offering a Master of Accountancy at Missouri Southern State College and Missouri Western State College. In addition, St. Louis Community College, Harris-Stowe State College, Southeast Missouri State University, and the University of Missouri-St. Louis are collaborating to provide access to articulated programs in the St. Louis metropolitan area.

- Other collaborative initiatives include Central Methodist College providing access to nursing education at Mineral Area College and East Central College. Washington University and the University of Missouri-St. Louis are working together to provide access to low cost engineering courses and programs in the St. Louis metropolitan area. The University of Missouri-Rolla has several articulated and collaborative programs with the state's public two-year community colleges and provides, as well as receives, courses and programs nationally through the satellite-based National

Technological University (NTU). The University of Missouri-Rolla also collaborates with several Missouri colleges and universities in delivering a master's-level engineering management program.

Workforce Development

- Nearly 25,000 workers are participating in customized and contract training, and many more are pursuing continuing professional education.

- Each year more than 49,000 students graduated from Missouri's colleges and universities in 1995, 1996, and 1997 - 3,000 more than in 1992. The class of 1997 produced 66 veterinarians, 437 medical doctors, 696 lawyers, 74 dentists, 37 optometrists, and 1,875 engineers.

- Between 1992 and 1996, the number of students completing job entry postsecondary technical education certificate, diploma, and degree increased by 1,707 students at Missouri public two- and four-year institutions.

APPENDIX E

BIBLIOGRAPHY

Bibliography

Astin, A.W. Four Critical Years. Jossey-Bass, San Francisco, California, 1977.

Bowen, H.R. *Financial Needs of the Campus.* The Corporation and the Campus. Academy of Political Science, New York, New York, 1970.

Bowen, H.R. The Cost of Higher Education. Jossey-Bass, San Francisco, California, 1980.

Bradburd, R., D. Mann, M. McPherson, and M. Schopiro. The Ability to Afford Higher Education: Past, Present, and Future. Pelvavin Associates, Washington, D.C. 1990.

Breneman, David W. Taking Up The Challenge, A Report on the Midwestern Higher Education Policy Summit, Oak Brook, Illinois 1998.

Do Grants Matter: Student Grant Aid & College Affordability. The Education Resources Institute, Boston, 1998.

Dooris, M. and R Bundy. *When the fog Clears: Is Tuition Really Out of Control?* October 14, 1997. www.nacubo.org/website/members/bomag/1097_dooris.html.

Feldman, K. and T. Newcomb. The Impact of College on Students. Jossey-Bass, San Francisco, 1969.

Gates, L. *Observations On The Economics of Higher Education.* Office of Planning and Budget, University of Missouri System, 1999.

Geddes, Claire M., Charlene M. Hoffman, and Thomas D. Snyder, Digest of Education Statistics 1997, National Center for Education Statistics, U.S. Department of Education, Washington D.C., 1997.

Halstead, K. State Profiles: Financing Public Higher Education, 1978 to 1994. Research Associates of Washington, Washington, D.C. 1994.

Hansmann, H. *The Role of Nonprofit Enterprises* in The Economics of Nonprofit Institutions edited by S. Rosen-Ackerman. Oxford University Press, New York, New York, 1986.

Hartle, H. *Beneath The Surface: College Is Not As Costly As It Seems,* Educational Record, volume 67, Summer 1986.

Harvey, J. and J. Immerwahr. Goodwill And Growing Worry: Public Perceptions of Higher Education. American Council on Education, Washington, D.C. 1994.

Harvey, James, Roger M. Williams, Rita J. Kirshstein, Amy Smith O'Malley, and Jane V. Wellman, Straight Talk About College Costs and Prices, The National Commission on the Cost of Higher Education, Oryx, Phoenix, 1998.

Hoxby, C. M. *How The Changing Market Structure of U.S. Higher Education Explains College Tuition.* Working Paper 6323. National Bureau of Economic Research, Cambridge, Massachusetts, December 1997.

Johnson, J. Leland, and Stephen G. Katsinas, *Outside Looking In: Comparing Missouri to the Nation,* Missouri Department of Higher Education, St. Louis, 1997.

Lenington, R.L. Managing Higher Education As A Business. Oryx Press, Phoenix, Arizona, 1996.

Pascarella, E.T. and P.T. Terenizini. How College Affects Students. Jossey-Bass, San Francisco, 1991.

Missouri Coordinating Board for Higher Education. *Report of the Missouri Business and Education Partnership Commission,* Jefferson City, Missouri, 1991.

Missouri Coordinating Board for Higher Education. *Shaping the Future: Critical Choices on the Road to Excellence,* Jefferson City, Missouri, 1992.

Missouri Coordinating Board for Higher Education. *2020 Vision The Hyperlink: Higher Education in Missouri,* Jefferson City, Missouri, 1996.

Missouri Coordinating Board for Higher Education. *Public Policies Affecting Missouri Higher Education Delivery System.* Jefferson City, Missouri, 1997.

Missouri Coordinating Board for Higher Education. *Show-Me Higher Education: Results of the Blueprint,* 1997 Annual Report, Jefferson City, Missouri, 1998.

Missouri Coordinating Board for Higher Education. *1998 Report on Progress Toward the Statewide Public Policy Initiatives and Goals for Missouri Higher Education,* Jefferson City, 1998.

Missouri Coordinating Board for Higher Education. *Statistical Summary of Missouri Higher Education,* Jefferson City, Missouri, 1998.

Missouri Coordinating Board for Higher Education. *Statistical Summary, Proprietary Sector of Missouri Postsecondary Education 1996-97,* Jefferson City, Missouri 1998.

Missouri Coordinating Board for Higher Education. *Strategic Plan for the Missouri Department of Higher Education,* Jefferson City, Missouri, 1998.

The Tucker Report: Report of the Governor's Task Force on the Role of Private Higher Education in Missouri, Missouri Department of Higher Education, Jefferson City, 1970.

Stanojevic, V.B. *Preserving Missouri's Tradition of Affordable Higher Education: A Call For Action.* Paper Prepared for the 1998 Missouri Governor's Conference on Higher Education. Missouri Coordinating Board for Higher Education, Jefferson City, Missouri, December 1998.

Winston, G.C. and I.C. Yen. *Costs, Prices, Subsidies, and Aid In U.S. Higher Education.* Discussion Paper Number 32. Williams College, The Williams Project On The Economics of Higher Education. Williamstown, Massachusetts, 1995.

Wittstruck, John R. and Stephen M. Bragg, *Focus on Price –Trends in Public Higher Education: Tuition and State Support,* State Higher Education Executive Officers, 1988.

Yanikoski, R.A. *Anomalous Aspects of Pricing Higher Education.* Paper presented at the 24th Annual Interntional Conference of the Society for College and University Planning, Denver, Colorado, July 1989.

Zhou, W. *College Outcomes Survey Findings About Currently Enrolled Students.* Coordinating Board for Higher Education, Jefferson City, Missouri, February 1999.

END

U.S. Dept. of Education

Office of Educational
Research and Improvement (OERI)

ERIC

Date Filmed
December 17, 1999